MedTech Actuator / Menzies Leadership Foundation Whitepaper

Unlocking the Potential of Science Commercialisation: From Training to Systemic Change

MEDTECH ACTUATOR

MENZIES LEADERSHIP FOUNDATION

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Acknowledgement

The MedTech Actuator gratefully acknowledges Professor Colin McLeod, Professor and Executive Director of the Melbourne Entrepreneurial Centre at The University of Melbourne, for his collaboration and co-development of the ideas contained in Part I of this paper. Collaboration is always best when one can no longer tell where one person's ideas end and the other's begin. We are deeply indebted to Professor McLeod for his warmth, brilliance, and generosity—in this and in many other ways.

MedTech Actuator / Menzies Leadership Foundation Whitepaper

Unlocking the Potential of Science Commercialisation: From Training to Systemic Change

Overview

Over four years, from 2020 to 2023, the MedTech Actuator, in partnership with the Menzies Leadership Foundation, delivered two national science entrepreneurship programmes. These initiatives were designed to bridge the gap between scientific research and commercialisation by equipping researchers with essential entrepreneurial skills.

The programmes offered robust and practical training, one-on-one mentorship, and facilitated critical industry exchange and connections. They featured bilateral, competitively funded fellowships to support mid-career researchers with exceptional potential, and scholarships aimed at early-career researchers taking their first steps into entrepreneurship.

With the conclusion of the programmes, this paper presents a summary of the outcomes, key learnings, and recommendations. In capturing this experience, the MedTech Actuator and the Menzies Leadership Foundation openly contribute their collective knowledge as a resource for the broader ecosystem, with the goal of improving the successful commercialisation of medical innovations.

Forward

For over 45 years, the Menzies Leadership Foundation has been dedicated to fostering leadership that is grounded in purpose, values, and a commitment to the 'greater good'.

Since 2020, in partnership with the MedTech Actuator, we have embarked on a transformative journey to bridge the critical gap between scientific research and its commercial potential. This whitepaper, Unlocking the Potential of Science Commercialisation: From Training to Systemic Change, captures the essence of that journey and the profound impact of our collaborative efforts.

At the heart of the Foundation's mission is the belief that leadership is not confined to traditional roles or titles, but rather a dynamic practice, rooted in integrity, resilience, and an entrepreneurial spirit. As we face global challenges marked by volatility, uncertainty, complexity, and ambiguity, the need for adaptive, empathetic, and values-driven leadership has never been more urgent.

Inspired by the enduring legacy of Sir Robert Menzies, who championed the role of education and scientific inquiry as pillars of national progress, we continue to support initiatives that tackle issues critical to Australia's future. Menzies once declared, "If I leave the Australian universities in a healthy state, it will all have been worthwhile." Today, we extend that vision beyond academia, into the vibrant ecosystem of science entrepreneurship.

Through the MedTech Actuator Menzies Scholarship and Fellowship programmes, we have equipped emerging science leaders with the skills, networks, and resources necessary to navigate the complex landscape of research commercialisation. These programmes have not only fostered groundbreaking innovations in health, medical, and biotechnology sectors but have also cultivated a generation of leaders who are driven by purpose and prepared to make meaningful contributions to society.

This report reflects our commitment to systemic change. It highlights the successes, challenges, and learnings from our collaboration, offering insights that will inform future strategies to support science entrepreneurs. More than just a record of achievements, it is a call to action—to embrace a culture of innovation, support deep collaboration, and build an ecosystem where ideas can flourish and translate into real-world impact.

As you read through this whitepaper, we invite you to reflect on your own purpose and consider how, together, we can continue to fuel innovation, empower emerging leaders, and shape a future where science and entrepreneurship drive sustainable progress for Australia and beyond.

Liz Gillies

CEO, Menzies Leadership Foundation

Introduction: MedTech Actuator

Australia's economic future is deeply linked to the ability to harness the potential of our research organisations and transform their outputs into commercially viable innovations. This focus has been a cornerstone of both national discussions and public policy initiatives, emphasising the critical role of research commercialisation in driving long-term prosperity.

Time and time again, the concept of “research commercialisation” emerges as a key mechanism for ensuring that Australia's substantial public investments in universities and research institutes yield tangible benefits. These include driving economic transformation, generating financial returns, and fostering meaningful socio-economic outcomes on a national scale. This is particularly evident in research related to health and wellbeing, where Australian scientific discoveries have made exceptional contributions to the global ecosystem.

However, despite significant resource investment and focus, the translation of research into practical outcomes has often been inconsistent, especially in the health technology sector. With rapidly evolving healthcare demands, fostering stronger collaboration between entrepreneurial, commercial, and research systems is more crucial than ever. Strengthening these connections is essential not only to amplify the impact of innovation but also to secure Australia's position in an increasingly competitive global landscape.

While Australia's strong tradition of academic research and innovation provides a solid foundation, overcoming persistent challenges and capitalising on untapped opportunities will be key to unlocking its full potential.

The MedTech Actuator-Asia Pacific's leading healthtech commercialisation initiative-has played a pivotal role in nurturing early-stage, high-growth ventures in healthcare. It has achieved this by leveraging a robust network and ecosystem, and by drawing on insights from its Fellowship and Scholarship programmes. These were delivered over the past four years in partnership with the Menzies Leadership Foundation.

From this unique vantage point, this paper delves into valuable insights gathered from these programmes and highlights the journeys of scientists and researchers as they work to bring medical innovations to market. It aims to provoke dialogue among policy makers and ecosystem leaders on redefining the role of research institutions—such as universities and medical research institutes—in driving commercialisation efforts. While the focus begins in Australia, the discussion has the potential to reach across the Asia-Pacific region, fostering collaboration and progress on a broader scale.

By bridging the gap between groundbreaking research and market-ready solutions, together we can unlock transformative opportunities for growth, innovation, and lasting impact—positioning Australia as a global leader in healthcare innovation.

Dr Buzz Palmer

CEO, MedTech Actuator

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Part I

Reflections on the ecosystem

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Reflections on the ecosystem

The MedTech Actuator Menzies Foundation Fellowship and Scholarship programmemes equipped scientists and researchers working on cutting edge health technology innovations with a solid foundation, enhancing their capabilities, skills, and understanding of commercialisation. The Scholars and Fellows demonstrated notable improvements in engagement, strengthened their industry and innovation ecosystem connections, and grew in confidence. Despite this positive impact, participants still faced a disconnected and fragmented system—characterised by competing objectives, duplication, and inefficient resource allocation (such as limited access to capital). In the face of this situation, many continue to push through, forging paths for their projects and their careers as leaders, driving innovation and change, equipped with more knowledge and resilience.

The path to world-leading innovation and to leadership should be tough and rigorous. It's part of driving quality and market dynamics should help to naturally produce the best leaders, and the best innovation. But it could be easier and faster driving better outcomes without compromising quality.

> *The most beneficial aspect of this programme is the network of like-minded individuals who are at different stages of a similar journey. Everyone is really keen to help out and be there for you, which transforms this programme into a life-changing experience."*
>
> MedTech Actuator 2021 Menzies Scholar,
> Marta Orlowska

Our experience and that of the participants makes it clear that training and skill development of scientists and researcher entrepreneurs like that provided through the MedTech Actuator Menzies Fellowship and Scholarship programmes, whilst critical, is only one discrete component that will drive impact in a complex commercialisation ecosystem.

While the individual efforts of aspiring scientist and researcher entrepreneurs are vital and training should continue by funding proven programmes, they represent only one side of the equation. To truly succeed in commercialising science and building the leaders of the future, we must also adapt the ecosystem in which they operate.

Other studies, such as the "Spinning out report" published by the Menzies Foundation, have already highlighted a number of system level barriers, opportunities, and important elements that we strongly encourage and support and that many institutes are working to improve. These include creating 'Appealing IP terms from research institutes', and 'developing more commercially friendly policies and incentives within research institutions, including developing pathways back into research institutions for those science entrepreneurs who fail'.

We start this paper by stepping back and reflecting on the ecosystem. We bring focus to three system level topics - **capital, connectivity, and capability** - that we believe have a major impact on rates on successful health technology commercialisation.

1. Capital
'Smart' risk capital

2. Connectivity
Linking ecosystem elements

3. Capability
Building world-class talent

1. Capital: 'smart' risk capital - the lifeblood of health deeptech commercialisation

The journey from research to market in health technology is uniquely challenging. Unlike "shallowtech" sectors such as SaaS or consumer apps-where products can reach the market in months or a few years-health and deep technology ventures often face timelines of 7 to 15 years. These ventures must navigate scientific uncertainty, technical complexity, regulatory hurdles, and prolonged development cycles, all of which significantly increase risk. This reality demands not just more capital but smarter, specialised funding that aligns with the long-term nature of deep-tech commercialisation.

Despite Australia's globally recognised research excellence, a critical gap exists in the availability of early-stage risk capital tailored to health technology. The absence of such funding undermines the transition from idea to innovation, leaving many high-potential ventures stranded in the so-called "valley of death."

Australia's venture capital ecosystem has matured over the last decade, demonstrating a growing appetite for investment in technology and innovation. However, health technology remains underfunded and underserved.

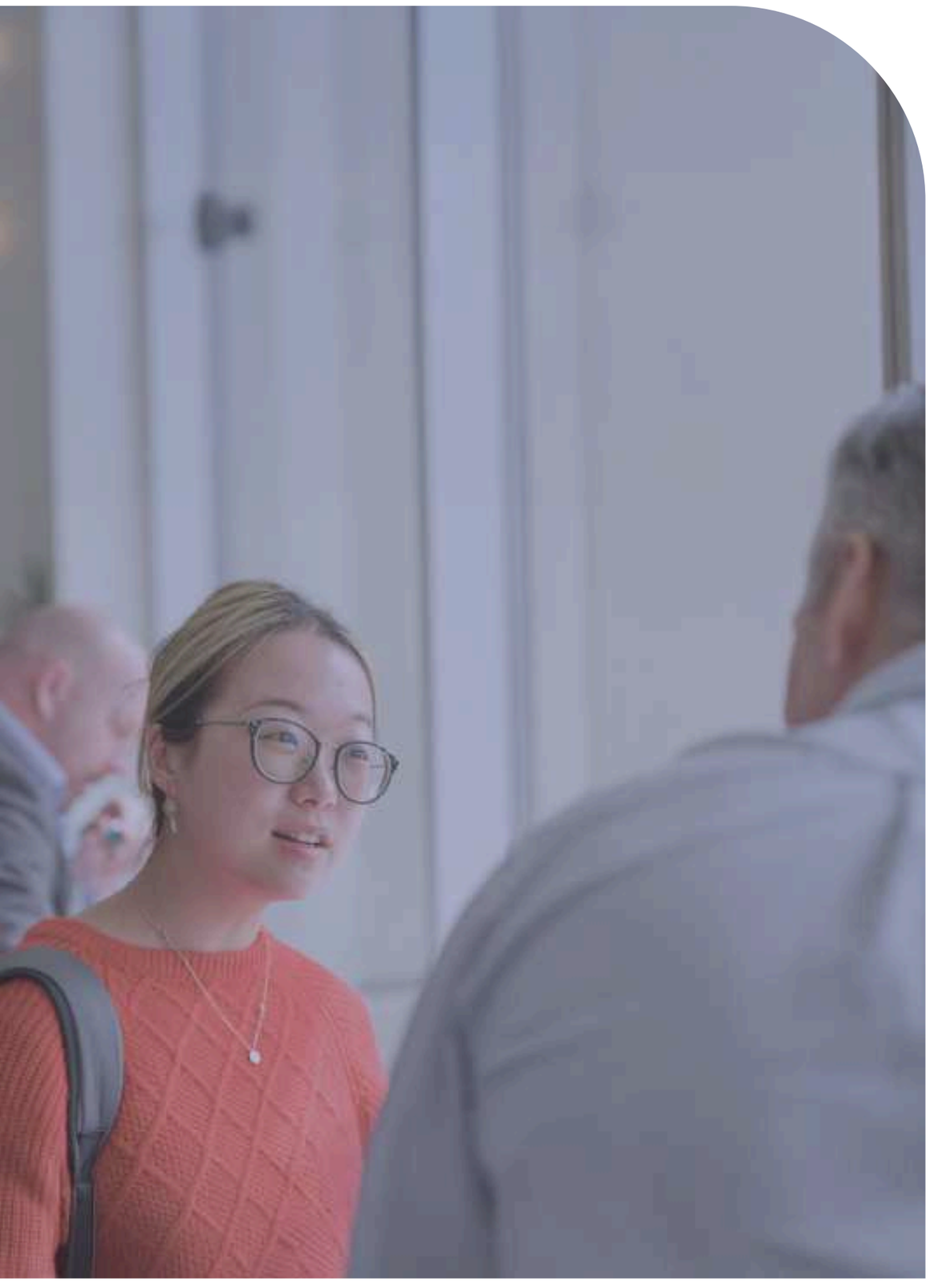
Much of the available capital is geared towards general technology or later-stage ventures, leaving early-stage health startups—where risks and returns are highest-struggling to secure funding.

Historically, investing in health and life sciences has been complicated by the depth of technology, the intricacies of regulatory environments, and the specialised knowledge required to evaluate ventures effectively. These complexities often deter investors and reinforce the myth that deep health tech is inherently riskier. Yet, this perception is misguided. Insights drawn from the MedTech Actuator's portfolio performance, which boasts a 51% gross internal rate of return (IRR), illustrate that when backed by expertise and targeted strategies, healthtech investments can deliver exceptional returns.

The common refrain in innovation and entrepreneurship circles is the lack of sufficient venture capital. This narrative, while partially true, fosters the misconception that the sole problem is a shortage of capital. In reality, what the system needs is not just more capital, but smarter capital-investment that brings not only funding but also the expertise, networks, and patience required for the unique demands of health technology commercialisation.

Existing capital players often lack the insight, agility, and connectivity to lead rounds in this space. As a result, Australian ventures face slower growth, with promising innovations often leaving for deeper capital markets in the US and Europe. This capital outflow deprives the local ecosystem of the economic and social benefits that could accrue from retaining and scaling health tech ventures domestically. Simultaneously, the lack of a robust local health tech investment ecosystem discourages leading international ventures from engaging with Australia.

Conversations with global VCs reinforce this challenge: proximity and established networks are essential to investment decisions, and Australia currently lacks the depth of specialist health tech investors and the infrastructure to attract more international players. This disconnect between the needs of health technology ventures and the available funding landscape results in lost opportunities-not only financial but also societal. Australia's failure to translate its worldclass research into commercial success limits its potential to generate economic value, address pressing healthcare challenges, and lead in global medtech innovation.



This context underscores the need for a targeted strategy to address these systemic barriers and strengthen the flow of capital across the health tech ecosystem.

To address this, we propose a targeted strategy to strengthen the flow of capital across the ecosystem.

Government-Seeding of Specialist Venture Funds

Governments can play a catalytic role in attracting private capital by de-risking early investments. Victoria's Breakthrough Victoria fund offers a local example of this model, providing the foundation for specialised funds targeting health and deep-tech sectors. However, broader national and state-level efforts are required to achieve scale.

- Designing Specialist Funds: Establish dedicated medtech and healthtech venture funds that combine public and private capital, ensuring alignment with the unique needs of the sector.
- De-Risking Investments: De-Risking Investments: Government seed funding should be used to mitigate earlystage risks, offering matched funding or guarantees to incentivise private participation.
- Leveraging Existing Platforms: *Leveraging Existing Platforms: Build on successful initiatives like Breakthrough Victoria while scaling their impact across other states. These funds should draw on existing networks, such as the MedTech Actuator, which has demonstrated its ability to generate high-quality deal flow.*

Scaling Local Capital Networks

Australia needs to cultivate its own ecosystem of health tech investors, reducing reliance on international capital and addressing the proximity bias highlighted by leading VCs.

- Expanding the Investor Base: Engage superannuation funds and high-net-worth individuals to invest in health technology, supported by incentives such as tax credits or co-investment schemes.
- Training for Angel Investors: Develop educational programmes to equip angel investors with the expertise to evaluate and support health-tech ventures, thereby broadening the pool of active early-stage investors.
- Encouraging Regional Funds: Support the creation of regionally focused funds, ensuring capital is accessible across Australia, including underserved regions.

Attracting Global Expertise

Australia must position itself as a destination for international health-tech investment, leveraging its strong research reputation and growing entrepreneurial ecosystem.

- Incentivising International Investment into Australia: Incentivising International Investment into Australia: Offer tax incentives or coinvestment opportunities to encourage global capital players to invest in Australian health-tech startups.
- Showcasing Success Stories: Highlight ventures that have successfully navigated the commercialisation pathway to build investor confidence in the sector.
- Facilitating Cross-Border Collaboration: Showcasing Success Stories: Highlight ventures that have successfully navigated the commercialisation pathway to build investor confidence in the sector.

2. Connectivity: Linking the elements of a strengths-based ecosystem, not endlessly duplicating effort

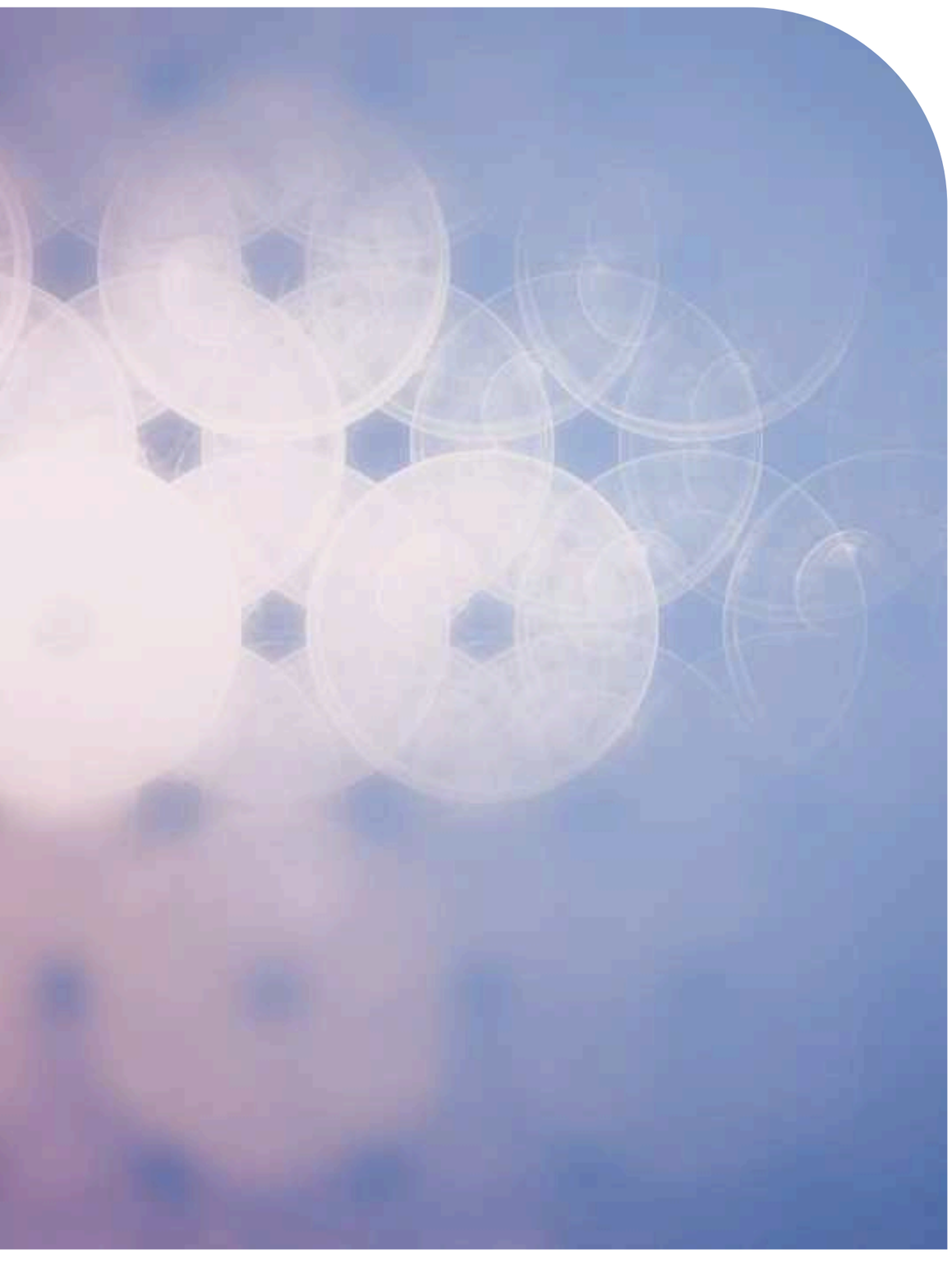
The success of health technology commercialisation hinges not just on the quality of individual components but on how well they connect and collaborate within a cohesive ecosystem. Too often, efforts in Australia's health-tech landscape focus on isolated elements-universities, startups, or investors-each striving to be the central solution. However, the reality is that no single part of the ecosystem can achieve success in isolation. The true potential of health innovation lies in creating an integrated synergistic network where each player contributes its strengths to the collective whole.

Australia boasts world-class research institutions, a growing entrepreneurial culture, and increasing interest from global investors. Yet, these strengths remain fragmented. Universities have been tasked with not only producing cutting-edge research but also driving its commercialisation—a role that often stretches their capacity and expertise. Similarly, startups and accelerators operate within their own silos, disconnected from the deep technical and clinical insights housed within academia or the regulatory and financial know-how of industry experts. The result is inefficiency, duplication of efforts, and ventures falling short of their potential due to gaps in support at critical stages.

This issue is compounded by a lack of structured pathways to bring together academia, industry, and entrepreneurial players in meaningful and sustained ways. Unlike ecosystems in global hubs such as Boston's Kendall Square or Israel's health innovation sector-where proximity, infrastructure, and cultural norms enable seamless collaboration-Australia's ecosystem often functions as a collection of independent actors rather than an interconnected whole.

What's needed is not an attempt to make every institution, startup, or initiative the entire solution but rather to create purposeful linkages that allow each element to thrive in its specialised role while contributing to the broader system. Universities excel at generating new knowledge and validating technology; accelerators and venture builders are adept at translating these insights into investable ventures; industry provides the commercial, regulatory, and market access expertise essential for scaling; and government can play a pivotal role as a connector and enabler. Universities do not need to become VCs, nor do accelerators need to become research institutes. The strength is in the whole.

A connected ecosystem also reduces duplication of effort, lowers barriers to entry for startups, and accelerates the pathway from discovery to impact. It allows organisations to focus on what they are good at, rather than seeking to duplicate others. For example, access to shared services-such as clinical trial design, regulatory guidance, and IP management-can remove significant hurdles for early-stage ventures while allowing universities and research institutions to focus on their core strengths. Similarly, centralised hubs that house physical infrastructure and provide proximity to collaborators create environments where serendipity and structured collaboration intersect.



The MedTech Actuator's work has demonstrated the power of connection. By serving as a bridge between researchers, entrepreneurs, and industry, it has created pathways for ventures to scale faster, attract investment, and succeed in global markets. However, initiatives like this require intentional support to expand their reach and maximise their impact. Building on this model, Australia must prioritise creating the infrastructure, programmes, and cultural norms that foster collaboration across all elements of the health-tech value chain.

Ultimately, an effective ecosystem is one where the whole significantly outperforms its individual components. By connecting academia, industry, and entrepreneurs, Australia can unlock the full potential of its health innovation sector, building a globally competitive system rooted in collaboration.

Again, we offer some recommendations about how this could be done:

Avoid Reinventing the Wheel

- Double down on programmemes and initiatives with a proven track record of impact, such as the MedTech Actuator. Over time, these organisations and the programmemes they run continuously improve as they adapt, learn, and embed learning and best practice, and their networks and capabilities mature and grow.
- Build on their success rather than duplicating efforts across the ecosystem - or constantly seeking a new 'flavour' of programmeme or entity. This ensures resources are allocated efficiently and amplifies the reach of initiatives already delivering measurable outcomes. Supporting proven programmemes leverages historic investment providing a foundation on which to drive excellence and innovation, rather than uncertainty and a fight for survival.

Create Collaboration Hubs

- Establish hubs like the Aikenhead Centre for Medical Discovery (ACMD) and precincts like the City of Melbourne's Arden redevelopment project, that bring together academia, industry, and startups in environments designed for connection and innovation.
- These hubs should include shared spaces, services, and infrastructure that reduce barriers, encourage serendipitous interactions, and foster multi-disciplinary collaboration essential for health-tech success.

Facilitate Structured Collaboration

- Develop initiatives to strengthen collaboration between universities, startups, and industry, focusing on comparative strengths rather than attempting to replicate efforts across sectors. Encourage cultural shifts that promote knowledge-sharing and trust between ecosystem players, supported by regular industry-academia exchange events and public showcases of collaborative successes.
- Strengthen ties across local and global ecosystems by linking Australian ventures with international hubs like Boston, Israel, and emerging hubs across the Asia Pacific such as Science Park in Singapore, and the Kansai region in Japan. Leverage overseas talent, alumni, and industry networks to create a flow of ideas, expertise, and capital. This global engagement should be matched by efforts to enhance trust, knowledge-sharing, and collaboration within Australia's own medtech community.

3. Capability: Building and Leveraging World-Class - and Real World Skill and Talent

Australia's health technology sector is powered by exceptional talent within its universities, research institutes, and entrepreneurial ecosystem. However, the capabilities required to navigate the lengthy and complex commercialisation journey are not adequately supported. The transition from researcher to entrepreneur-and from idea to innovation requires not just foundational knowledge but the practical skills and experience gained through repeated application in real-world contexts.

Skills are built through practice, not theory. While theoretical knowledge can provide an important foundation, commercialisation demands hands-on experience to develop the nuanced abilities needed to navigate regulatory hurdles, pitch to investors, and build sustainable ventures. Yet, much of the current training landscape for entrepreneurial researchers focuses on knowledge transfer rather than embedding these critical, practice-based skills.

Industry pull must also be central to capability-building efforts. Ventures are not created in a vacuum-they succeed when driven by market demand and connected to end-users early in their development.

Programmes and pathways must be designed to immerse researchers and entrepreneurs in industry-driven environments, where the application of their work is directly tied to solving real-world problems and creating tangible value. Collaborative projects with industry partners, customer engagement, and commercial validation must form the backbone of any training initiative.

Additionally, it is crucial to cultivate and support repeat entrepreneurs. First-time entrepreneurs often face a steep learning curve, and no number of micro-credentials or training programmes can substitute for the insights and confidence gained from real-world entrepreneurial experience. Supporting researchers to iterate, learn, and try again–even after failure–will significantly enhance the overall ecosystem by increasing the prevalence of seasoned, capable founders who drive innovation forward.

While programmes like the MedTech Actuator's Fellowships and Scholarships have proven effective at developing foundational skills and connecting researchers with industry mentors, these initiatives must expand and evolve to provide long-term, iterative support. The goal is not just to train individual entrepreneurs but to create a resilient ecosystem where the pathways to commercialisation are clear, accessible, and industry-driven.

Finally, Australia must adopt a global mindset, engaging with international networks of entrepreneurs, investors, and industry leaders to bring global expertise into the local ecosystem. By connecting domestic talent with these resources, Australia can accelerate learning, expand opportunities, and position itself as a world leader in health technology innovation.

Turning to the question of how, we recommend the following.

Embed Entrepreneurship in Research Training

- Integrate entrepreneurship and commercialisation into PhD and postdoctoral programmes, but ground this training in practice-based experiences.
- Include immersive industry-driven projects where researchers work directly on real-world challenges with market applications.

Expand Practice-Based Learning Opportunities

- Scale proven initiatives like the MedTech Actuator Fellowships and Scholarships, ensuring that programmes include industry partnerships and focus on market-driven outcomes.
- Create multi-year, hands-on support systems that allow participants to repeatedly test, refine, and apply their skills in practical settings.

Foster and Support Repeat Entrepreneurs

- Provide mechanisms for entrepreneurs to learn from failure and return to the ecosystem with greater experience.
- Offer dedicated funding and mentorship for second and third-time entrepreneurs, acknowledging their critical role in driving ecosystem success.

Prioritise Industry Pull

- Develop pathways that start with industry demand, ensuring research and venture creation address validated market needs.
- Increase opportunities for researchers to collaborate with industry partners, gaining insights into market dynamics and end-user requirements.

Leverage Global Talent Networks

- Engage overseas Australians, alumni, and international experts to provide mentorship, strategic advice, and funding connections.
- Facilitate exchanges with global health-tech hubs, allowing researchers to gain exposure to international best practices and networks.

What does success look like

From the delivery of the Menzies Leadership Foundation programmes over the last 4 years and many other commercialisation development programmes across the Asia Pacific, we know that skills acquisition through experience is the best source of confidence - the ability to say 'I've done this before', creating the mindset and skills needed to navigate uncertainty. We have seen that brilliant talent can achieve outstanding results and returns but we also have seen how at the system level we need more smart risk capital as fuel to drive this success, and we should not look to one vertically integrated player to drive the success of the whole ecosystem, rather we need better coordination and connection.

A common measure of success often sought is increasing the number of high value new companies known as Unicorns, that disrupt industries and sectors and that create innovations that improve lives and drive economic growth.

In addition, and taking a view at the individual level, the successful future we see has researchers and scientists having access to diverse career experiences and leadership roles in new high growth science based ventures or in existing companies and institutions, driving innovation and new technology forward achieving both commercial and societal impact.

We see a future where the system is better connected and each organisation and individual can bring and build on their respective strengths, and where there is a greater acceptance of the value of 'failure', learning, and non-traditional paths. Success is built on failure. With space for experimentation and trial within a community of support the learnings of these experiences being embedded into a well functioning, efficient and mature health and medical science innovation ecosystem.

Australia's ability to lead in health technology innovation lies in creating a robust, synergistic ecosystem that integrates **capital, connectivity, and capability.**

Moving beyond individual successes and ad hoc initiatives, we envision a systemic transformation to position Australia as a global leader in health and medical commercialisation.

Maintaining our focus on Capability building, section II dives deeper into the MedTech Actuator Menzies Leadership Foundation Scholarship and Fellowship programmes, sharing experiences and learnings on two successful capability building programmes that have equipped a new wave of emerging leaders with the skills and abilities to manage a turbulent but exciting future.

Part II

MedTech Actuator Menzies Leadership Foundation Partnership:

Overview and Impact

Part II - MedTech Actuator Menzies Leadership Foundation Partnership: Overview and Impact

In 2020, the MedTech Actuator and Menzies Leadership Foundation partnered to support future science leaders by providing entrepreneurial training and access to industry networks. This collaboration aimed to drive Australia's growth by fostering the commercialisation of scientific research and creating new career opportunities in MedTech, HealthTech, and BioTech.

During this collaboration, the MedTech Actuator proudly rolled out national Fellowship and Scholarship programmes. These programmes offered health and medical researchers and scientists a hands-on, in-depth journey. Through a dynamic focus on entrepreneurship, commercialisation, and leadership, participants gained the tools and knowledge critical to bringing their breakthroughs to life and driving meaningful change.

Key Statistics and Impact Metrics

4 Year collaboration

Participant representatives from almost all states & territories in Australia

Number of graduates

4 Fellows

16 Scholars

119 Scholarship applicants

36% F
64% M

42 Fellowship applicants

41% F
59% M

1,028 Engagement hours all participants

Quotes

> *"Overall, it was a great opportunity to be involved in this program; it opened my eyes to many new areas I hadn't previously considered. It has been so exciting to access the experience, expertise, and networks necessary to commercialise our lab-on-a-chip technologies."*
>
> MedTech Actuator Menzies Fellow 2022/2023, Dr Warwick Nesbitt

> *"The programme connected us with great manufacturers by pairing us with a product development mentor. This was a key milestone in enabling us to organise our first small run batch of manufactured devices, allowing us to move beyond prototypes and start producing devices for sale. We also had great exposure to investors and the wider ecosystem outside of the university."*
>
> MedTech Actuator 2021 Menzies Scholar, Dr Rowan Page

MedTech Actuator Menzies Scholarship

MedTech Actuator and the Menzies Leadership Foundation awarded 40 high-potential health, medical and biotechnology researchers the prestigious MedTech Actuator Menzies Scholarship. These scholarships were designed to empower researchers to build dynamic careers that integrated science, research, and entrepreneurship.

Spanning four cohorts, this programme provided participants with deep exposure to entrepreneurship, the startup landscape, and pathways to commercialisation. Through a blend of educational touchpoints and hands-on experiences, Scholars connected with healthcare entrepreneurs and industry experts. Designed in phases, this programme equipped Scholars with the skills and knowledge necessary to bridge the gap between groundbreaking research and successful technology translation, empowering participants to launch ventures that drive real-world impact.

Phase 1: Orientation and Learning

- Kick-off Meeting: Scholars met with the MedTech Actuator team to set expectations and objectives for the programme.
- Online Learning: Scholars took part in a series of online sessions, including:
    - Fireside chats with MedTech Actuator alumni, who shared valuable insights on commercialisation.
    - Learning modules covering core commercialisation topics.
    - Access to the MedTech Actuator Knowledge Hub for continuous learning.

Phase 2: Integration into MedTech Actuator Origin

Scholars were integrated into the MedTech Actuator Origin programme and pitch competition, which provided hands-on experience in the startup ecosystem through the following activities:

- Workshops:
    - A pitching workshop, focusing on how to present and communicate in the entrepreneurship context.
    - An Intellectual Property workshop, offering guidance on protecting innovations.
- Intensive Sprint: Scholars engaged in a series of collaborative, high-pressure sessions aimed at refining their business and commercialisation strategies.
- Semi-Final: Semi-Final: Scholars showcased their progress and business plans, receiving feedback from industry experts.

Phase 3: Networking and Mentorship

- Formal Scholarship Dinner: A prestigious event where Scholars had the chance to engage with key stakeholders. including:
    - Dr. Buzz Palmer, CEO of MedTech Actuator
    - Liz Gillies, CEO of the Menzies Leadership Foundation
- MedTech Actuator Origin Wrap-Up Lunches: Scholars were invited to exclusive networking lunches, offering opportunities to connect with other founders to celebrate successful completion of the programme.
- MedTech Actuator Showcase: MedTech Actuator Showcase: Scholars were invited to MedTech Actuator's exclusive black-tie event, bringing together 250+ ecosystem representatives for an evening of celebration and opportunities to connect with key stakeholders.

MedTech Actuator
Menzies Scholars 2020

Alinta Furnell

University of NSW | Bachelor of Advanced Science (Honours – Medical Biotechnology & Microbiology)

Developing a point-of-care diagnostic that enables people to rapidly test for multiple sexually transmitted infections in the comfort of their own homes

Dr Chia-Chi Chien

University of SA | Chief Scientific Officer |

A novel device that provides researchers and clinicians with a safer and faster method of testing the drug treatment efficacy for cancer patients

Debolina Majumdar

RMIT University | PhD Candidate

Developing an AI-based cough sound monitoring app for early diagnosis and monitoring of various respiratory infections

Ethan Grooby

Monash University | PhD Candidate

Developing a smart digital stethoscope and video system with a supporting app to help clinicians accurately and easily monitor newborn health

Julie Dao

Monash University | PhD Candidate and Doctor of Philosophy

Developing a novel clinical decision support application to help clinicians access up-to-date health information, guiding clinicians in making more efficient and effective decisions

Dr Luke Visscher

QLD Health & Queensland University of Technology

Developing specialist software for computer-aided orthopaedic surgery, allowing enhanced surgical planning and accurate surgical navigation

Dr Martina Barzan

Griffith University | Research Fellow

Developing state-of-the-art digital models and 3D-printed, personalised surgical guides to support clinicians and improve patient outcomes in complex paediatric orthopaedic surgeries

Ritesh Rikain Warty

Monash University | PhD Candidate

Novel device for rehabilitating pelvic floor muscles in women with pelvic organ prolapse

MedTech Actuator Menzies Scholars 2020

Hope Newman

Monash University | PhD Candidate

Investigating potential markers and therapeutics for egg quality with regards to age in assisted reproductive technologies

Dr Sohyb Basir

The University of Queensland | Emergency Doctor / GP Trainee (MBBS)

Developing a secure web application to engage waiting patients in emergency departments in which point-of-care data is processed in real time to identify red flags and guide clinical decisions while doubling as a research platform

Startups emerged from this cohort

Gravida Health

Ritesh Rikain Warty

A world-first medical innovation to improve labour induction procedures and provide a more positive experience for women

Synbiote

Alinta Furnell

Synbiote aims to enact the facilitation of synthetic biology solutions in space by providing a novel bioprocess system that is both efficient and compact

Sonorus

Julie Dao

Sonorus uses AI to improve cardiovascular disease detection

OminiWell

Dr Chia-Chi Chien

OminiWell uses 3D cell culture platforms to help reduce dependency on animal testing, enabling scientists to translate from the lab to the clinic and to personalise medicines for patients suffering from cancer and other diseases that rely heavily on new treatments

MedTech Actuator
Menzies Scholars 2021

Adaeze Ekwe

QIMR Berghofer Medical Research Institute and the Queensland University of Technology | PhD Candidate

Developing a novel cellular therapy for graft-versus-host-disease (GVHD) using genetically modified immune cells known as regulatory T cells (Tregs)

Dr Chia-Chi Chien

University of SA | Chief Scientific Officer |

A novel device that provides researchers and clinicians with a safer and faster method of testing the drug treatment efficacy for cancer patients

Dr Anushi Rajapaksa

Murdoch Children's Research Institute and the University of Melbourne | PhD Candidate

A novel acoustic nebuliser that will allow rapid lung delivery of life-saving biomolecules that could help respond quickly to both current and emerging infectious respiratory diseases in children

April Van Der Kamp

Flinders University | Bachelor of Science (Honours)

Development of novel bacteriophage-based diabetic foot ulcer treatments

Darcy Dunn-Lawless

Flinders University | Master's Degree in Engineering (Biomedical)

A medical implant for cancer patients who have had orthopaedic surgery, using ultrasound waves to both monitor them for tumour recurrence and enhance the healing of their bones after the operation

Erin Humphries

Children's Medical Research Institute and The University of Sydney | Master of Science (Research)

Discovering new biological insights into cancer using high-throughput phosphoproteomics of formalin-fixed, paraffin-embedded tissue samples

Ismat Kabbara

University of NSW | Master of Science (Research)

Synbiote aims to increase efficiency, and reduce costs associated with the manufacturing and production of biological materials for use as pharmaceuticals

Marta Orlowska

QIMR Berghofer Medical Research Institute and the Queensland University of Technology | PhD Candidate

Metaboractor: tackling metabolic shifts in cell culturing through environment control

MedTech Actuator Menzies Scholars 2021

Rance Brennan B. Tino
RMIT University | PhD Candidate
3D Printing of bespoke phantoms for treatment planning verifications in Radiotherapy

Rowan Page
Monash University | Early Career Researcher
A wearable light sensing device to guide people toward healthier light exposure patterns

Sebastian Corlette
Murdoch Children's Research Institute and the University of Melbourne | PhD Candidate
A new sensor for high-quality long-term electroencephalogram (EEG) measurement in young babies

Startups emerged from this cohort

Acutrode
Sebastian Corlette
The Acutrode EEG sensor for electroencephalography increases patient comfort, decreases set-up time, and saves up to 50% of costs

Circadian Health Innovations
Dr Chia-Chi Chien
At CHI, we're creating a wearable light sensor to guide users toward better light for better health and longevity

DFU Solutions
April Van Der Kamp
DFU Solutions is developing phage-based solutions for diabetic foot ulcer infections

Misti
Dr Anushi Rajapaksa
Misti is on a mission to end respiratory discomfort and breathe health back into households across the world

Synbiote
Ismat Kabbara
Synbiote aims to enact the facilitation of synthetic biology solutions in space by providing a novel bioprocess system that is both efficient and compact

MedTech Actuator
Menzies Scholars 2022

Dr Andrew Foster

The University of Queensland | PhD Candidate / Doctor of Philosophy

Developing an antibiotic hydrogel for locally applied treatment of surgical infection

Angus Weekes

Queensland University of Technology | PhD Candidate

Off-the-shelf vasculature; bio fabrication of non-immunogenic decellularised human vascular grafts

Helen King

Garvan Institute | PhD Candidate

Identifying age-related molecular modifiers that underpin Parkinson's Disease

Muhammad Nouman

Deakin University | PhD Candidate

An AI-aided mental health prediction platform

Nina Langer

Monash University | PhD Candidate

Developing a heart-assist pump to improve the quality of life of patients with heart failure

Oyime Poise Aula

QIMR Berghofer Medical Research Institute and Queensland University of Technology | PhD Candidate

Developing molecular point-of-care tests for neglected tropical diseases

MedTech Actuator
Menzies Scholars 2022

Shiva Pedram

University of Wollongong | Research Fellow

Developing remote mental healthcare support using Virtual Reality

Urwah Nawaz

University of Adelaide and UNSW | PhD Candidate

Developing a low-cost lateral rotation mattress that can adjust patient positions

Zachary Rochecouste

University of New South Wales | Bachelor Student and Researcher

Creating a Total Artificial Heart

Startups emerged from this cohort

Healovate

Muhammad Nou

Revolutionizing the diagnosis of neurovascular diseases through innovative approaches, including AI, signal processing, and computational fluid dynamics

Vertere

Urwah Nawaz

An all-integrative lateral rotation mattress combined with machine learning automated prevention of pressure sore development. We are building a low-cost disability-friendly mattress that provides people with disabilities autonomy over their sleep

MedTech Actuator Menzies Scholars 2023

Aadam Khan

University of New South Wales | PhD Candidate

Designing, synthesising and screening circular RNA that capture oncogenic miRNA for neuroblastoma treatment

Abdul Azees Ajmal

RMIT University and the Bionics institute | PhD Candidate

Developing an optical cochlear implant and a hybrid cochlear implant to restore hearing

Chidozie Chidi-Ezeama

Flinders University | PhD Candidate and Founder

Developing a portable point-of-care device for malaria detection and quantification, enabling rapid and accurate diagnosis at the patient's location for timely and effective treatment

Jason Holland

University of New South Wales | PhD Candidate and Founder

Making porous materials that can both deliver anticancer medicines and be monitored in real time using MRI and fluorescence imaging techniques

Kha Phan

La Trobe University | Research Fellow

Establish novel therapeutic strategies for viral and bacterial respiratory infections, ultimately with positive downstream health and economic effects for pandemic responsiveness

Layal El Wazan

The University of Melbourne and Centre for Eye Research Australia | PhD Candidate

An alternative treatment option for treating neovascular eye disease by repurposing endogenous receptors

Mingrui Sun

The University of Melbourne | PhD Candidate

Developing ultra-thin, flexible wearable muscle activity sensor for professional athletes post-injury rehabilitation monitoring

MedTech Actuator Menzies Scholars 2023

Muhsin Kizhisseri

Deakin University | Doctoral degree researcher (PhD)

Predicting human brain strokes by conducting computational fluid dynamics simulations in the carotid arteries of the human brain to understand the hemodynamics of blood flow and investigate biomarkers such as Wall Shear Stress and blood pressure within the cerebral arteries

Ruwini Cooray

Deakin University | PhD Candidate

Developing a cell therapy to repair brain injuries and restore function without invasive surgeries

Sergey Tumanov

Heart Research Institute | Senior Research Scientist

The focus of this project is to enable scientists to watch changes in cells in real time that could revolutionise the way cardiovascular disease, including heart attack, stroke and coronary heart disease, is diagnosed, treated and prevented, making personalised medicine a reality for every heart

Startups emerged from this cohort

Aurora Materials

Jason Holland

At Aurora Materials, we employ fluorescent nanocomposites to identify and authenticate high value assets using a secure, non-replicable tagging method

Biomicrology

Chidozie Chidi-Ezeama

Developing Biochrome, an AI-powered point-of-care device for malaria diagnosis in resource-poor and endemic regions.

Healovate

Abdul Azees Ajmal & Muhsin Kizhisseri

Healovate is committed to revolutionizing the diagnosis of neurovascular diseases through innovative approaches, including AI, signal processing, and computational fluid dynamics

Neurogen Global

Ruwini Cooray

Neurogen develops a minimally invasive cell therapy for neurological diseases to repair and restore brain function

Scholars - Where are they now?

Ritesh Rikain Warty

Since completing the MedTech Actuator Menzies Scholarship programme, Ritesh Rikain Warty has made significant strides in the MedTech industry. As one of three founding members and the Chief Technology Officer of Gravida Health, he leads the development and translation of medical technologies aimed at addressing inequities in healthcare innovation, with a particular focus on improving outcomes for women.

Building on the knowledge and connections gained from the scholarship, Ritesh has played an active role in Melbourne's MedTech ecosystem, fostering interdisciplinary collaborations to drive innovative healthcare solutions. His expertise spans medical device development, clinical trials, medical innovation management, and ISO13485 compliance. Recognised both academically and in the media, Ritesh remains committed to creating equitable and impactful technologies that transform lives.

> *"The MedTech Actuator Menzies Scholarship significantly enhanced my understanding of the MedTech industry, equipping me with valuable insights that I am actively applying to our initiatives in women's health technologies," he says. "The programme provided an invaluable opportunity to explore innovative advancements within the industry, gain a deeper appreciation of how MedTech startups operate, and understand the critical components necessary for success in this field."*

MedTech Actuator Menzies Scholar, Ritesh Rikain Warty

Gravida Health Founding Team, from left to right: Dr Densearn Seo (Co-Founder and CEO), Mr Ritesh Rikain Warty (Co-Founder and Chief Technology Officer), and A/Prof Vinayak Smith (CoFounder and Chief Medical Officer)

Dr Anushi Rajapaksa

As the founder of Misti, Anushi has achieved remarkable milestones since completing the MedTech Actuator Menzies Scholarship programme in 2021. Misti revolutionises how vaccines and therapies are delivered using advanced nebuliser technology that enables inhalation of biological medicines, aiming to protect vulnerable populations, particularly children and older adults, from respiratory infections.

Anushi's innovative work with Misti has earned notable recognition, including receiving the Lisa Ring Fellowship at StartSpace and the Silver AusMumpreneur Multicultural Business Excellence Award in 2023, along with the Bronze Recognition Award from GSK in 2022. Misti has also been selected for leading innovation programmes such as TRAM Air at the University of Melbourne, Startmate's Accelerator, Cicada Innovations Tech23, and ANDHealth ACTIVATE in 2024.

Reflecting on her journey, Anushi credits the MedTech Actuator Menzies Scholarship for providing the foundation to advance her vision: "The friendly and resourceful team at the MedTech Actuator, made me feel right at home. The skills and experiences I gained through this exceptional programme have equipped me with the tools to advance my work with confidence."

Through Misti, Anushi is poised to make a profound global impact, redefining how vaccines and therapies are delivered to those who need them most.

Misti team members, from left to right: Paul Carboon (Chief Commercial Officer), Anushi Rajapaksa (Founder and CEO), Hamish McWilliam (Chief Scientific Officer) and Bangyan Xu (Research Engineer)

Ruwini Cooray

Through the MedTech Actuator Menzies Scholarship programme, Ruwini Cooray has made significant progress with Neurogen Global, a startup developing pioneering microtissue-based cell therapies for neurodegenerative diseases. After losing both parents to incurable disease, Ruwini is driven by a personal mission to restore brain function in conditions like Alzheimer's, drawing on 15 years of international experience in molecular biology and genetics.

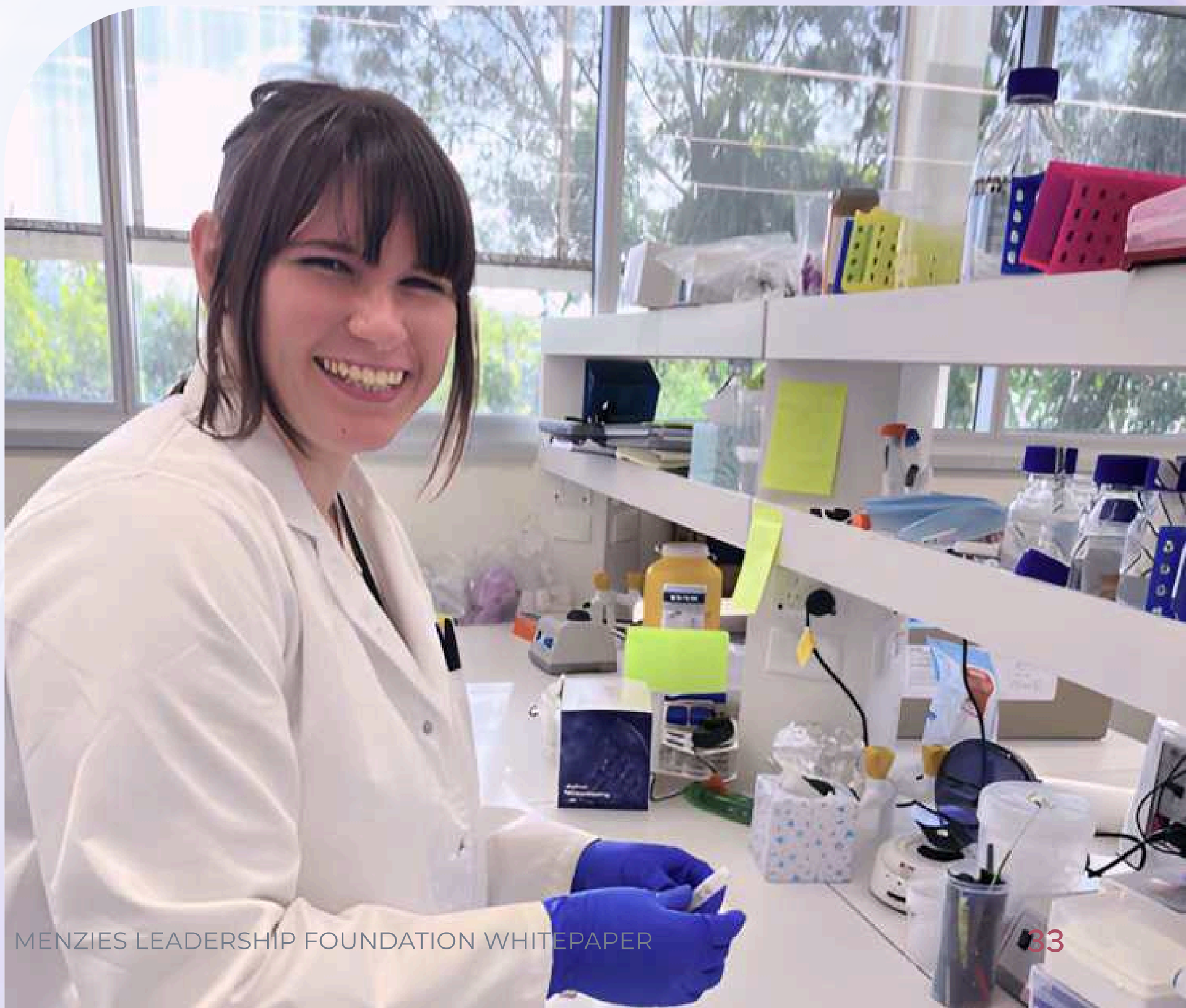
As the founder and CEO of Neurogen Global and a PhD researcher in neuro-genetics at Deakin University, Ruwini has achieved major milestones since receiving the Menzies Scholarship in 2023. She joined the MedTech Actuator Accelerator programme and the IMNIS Catalyst programme at the Australian Academy of Technological Sciences & Engineering, was awarded a 2025 Lisa Ring and Family Scholarship, received angel investment, and has commenced pre-clinical large animal trials at the Florey Institute.

> *“The MedTech Actuator Menzies Scholarship played a transformative role in Neurogen's early-stage growth, equipping me with critical leadership skills and a robust network of industry connections and collaborations that continue to drive our progress." This support has provided a solid foundation for the company's ongoing innovation and impact in the neurotech field.”*

MedTech Actuator Menzies Fellowship

The MedTech Actuator Menzies Fellowship was awarded to four high-potential life sciences researchers, providing them with an opportunity to engage with commercialisation and the startup ecosystem. This initiative aims to overcome barriers to technology translation and unlock the full potential of Australia's world-class research, fostering the development of the next generation of scientific leaders.

This programme offered a comprehensive, tailored experience that provided Fellows with mentorship from industry experts, networking opportunities, exclusive access to industry events, and a $20K stipend.



Phase 1: Leadership and Commercialisation Capacity Development (First 6 Months)

During the first six months, Fellows participated in a programme designed to develop their personal capacity for commercialisation. Key activities included:

- 1:1 Mentorship: Fellows received personalised mentorship from the MedTech Actuator executive team, aimed at building leadership and commercialisation skills.
- Tailored Support: The programme focused on the individual needs of each Fellow, helping them:
    - Break down preconceived notions and address knowledge gaps.
    - Navigate complex challenges and obstacles in the commercialisation process.
    - Gain the confidence to pursue the spin-out of their technologies.

This phase provided Fellows with the necessary tools and mindset to progress in their journeys.

Phase 2: Deepening Commercialisation Expertise (Following 6 Months)

In the second phase, Fellows gained tailored access to the MedTech Actuator Accelerator, where they participated in monthly sprints focused on critical aspects of commercialisation. Key components included:

- Focused Learning:
  Fellows engaged in deep-dive sessions on topics such as:
    - Recordings of sessions and other programme materials.
    - The MedTech Actuator Knowledge Hub, allowing them to fill gaps in their commercialisation expertise and further their learning with the ongoing support of the MedTedh Actuator.

The programme concluded with a Closing Dinner in December, where Fellows connected with the MedTech Actuator executive team and reflected on their journey. Fellows were also invited to the MedTech Actuator Showcase-an exclusive black-tie event that brings together 250+ ecosystem representatives for an evening of celebration and opportunities to connect with key stakeholders.

MedTech Actuator Menzies Fellows 2021/2022

Dr Chris McCarthy

Swinburne University of Technology | Associate Professor, Computer Science and Software Engineering | Co-founder

CueSleeve | CueSleeve is a wearable and flexible sleeve that computes and then delivers vibration-based cues to the user's forearm skin, guiding them towards objects that they are interested in looking at more closely, touching or picking up

Associate Professor Jeremy Crook

Chris O'Brien Lifehouse Hospital (Director of the Arto Hardy Family Biomedical Innovation Hub) | University of Sydney (Conjoint Arto Hardy Family Chair and Professor of Biomedical Innovation in the School of Medical Sciences) | University of Wollongong (UOW) and the Illawarra Health and Medical Research Institute (Hon) (Professorial Fellow - Biomedical Engineering) | Co-founder

Electronic Pharmaceutical: A novel way to repair a patient's damaged peripheral nerves through wireless electrical stimulation

MedTech Actuator Menzies Fellows 2022/2023

Dr Warwick Nesbitt

Australian Centre for Blood Diseases at the Victorian Heart Institute | Monash University | Adjunct Senior Research Fellow | Co-founder

HaemDynamics | HaemDynamics' mission is to act as a vehicle to commercialise novel platelet diagnostic, Lab-on-a-Chip, and therapeutic technologies that have been developed within the collaborative team

Dr Gregory Stewart

Neuromedicines Discovery Centre | Monash University | Senior Research Fellow | Co-founder and Chief Scientific Officer

Phrenix Therapeutic | Phrenix Therapeutics is developing transformative therapeutics for cognitive impairments in schizophrenia

Fellows - Where are they now?

Dr Greg Stewart

After completing the MedTech Actuator Menzies Fellowship in early 2023, Greg and his cofounders, Professor Chris Langmead and Jess Nithianantharajah, incorporated Phrenix Therapeutics, a BioTech spin-out from Monash University that aims to develop new treatments for schizophrenia and cognitive disorders.

Phrenix Therapeutics has since forged a partnership with French pharmaceutical company Servier to commercialise the technology, secured funding from Brandon Catalysts CUREator, and joined Global Victoria's trade delegation to BIO2024 in San Diego, USA. In 2024, Professor Chris Langmead and Dr Greg Stewart were honoured with the Monash University Vice-Chancellor's Award for Excellence in Research Enterprise and Commercialisation.

> *"Completing the MedTech Actuator Menzies Fellowship in 2022 gave me a clearer understanding of the commercialisation journey-an area often unfamiliar to academics. The programme focuses on understanding this entire process and what it is like to be an entrepreneur, helping participants bridge the gap between research and real-world impact."*

Phrenix Therapeutics team members at the Monash Generator Showcase in 2024, from left to right: Aimée Freeburn (Project Coordinator) and Dr Gregory Stewart (Co-founder and Chief Scientific Officer)

Fellowship Forum 2023

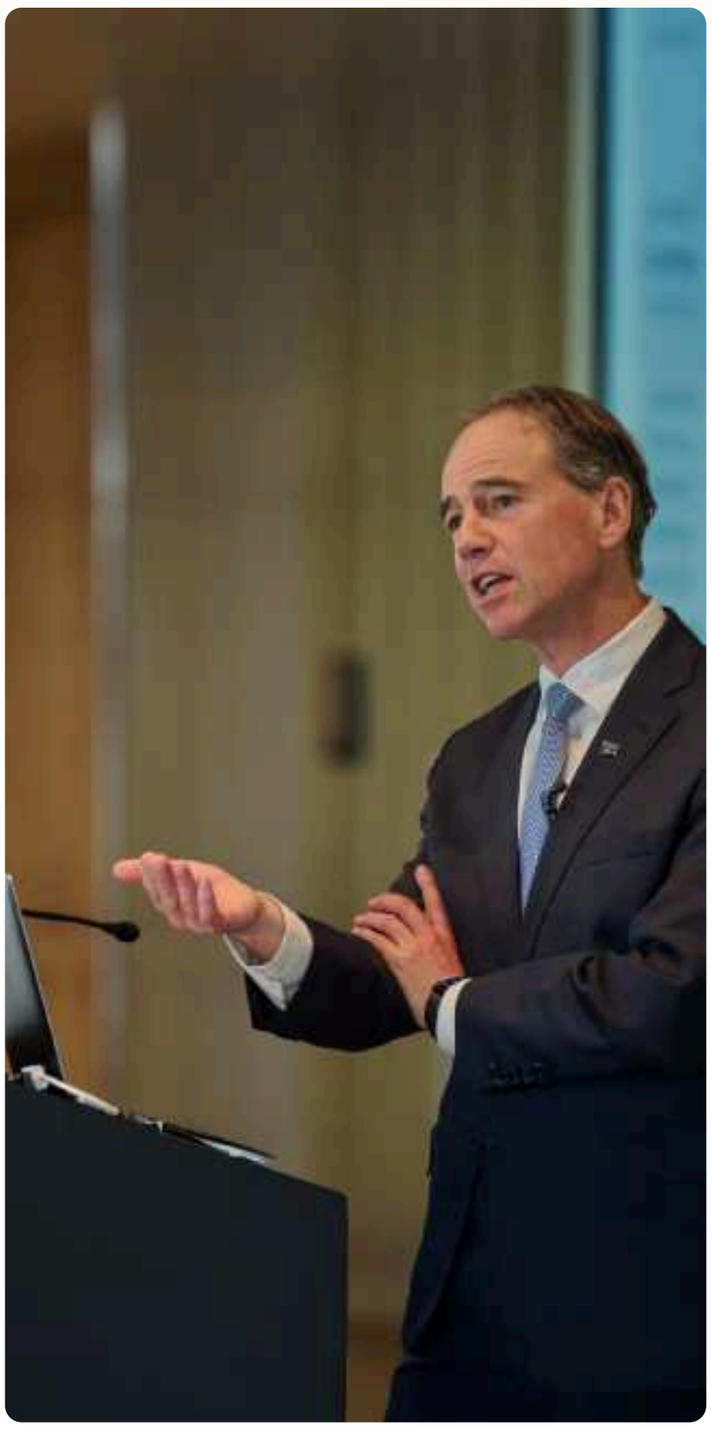
The partnership between the MedTech Actuator and the Menzies Leadership Foundation culminated in the Fellowship Forum, a satellite event held during the 2023 Global Entrepreneurship Congress (GEC) in Melbourne.

The alignment of the Menzies Fellowship Forum with the GEC created a powerful synergy within the Australian MedTech innovation ecosystem.

By showcasing the achievements of distinguished keynote speakers and a diverse panel of experts with a proven track record in fostering scientific entrepreneurship, the event gathered 100 mid- to senior-level researchers, scientists, and key ecosystem stakeholders. This provided attendees with valuable insights and tools to drive impact in their respective fields.

The half-day programme featured:

- Keynote Address: Prof the Hon. Greg Hunt on *The Future of Healthcare - Adding Value Globally*
- Panel Discussion: *The Future of Healthcare - Adding Value Globally,* moderated by Matthew Frith (MedTech Actuator), with panelists Michelle Gallaher (Opyl), Sue Martin (Johnson & Johnson MedTech), and James Allingham (Bupa)
- Panel Discussion: *Funding Pathways,* moderated by Buzz Palmer (MedTech Actuator), featuring Jerome Wielens (Breakthrough Victoria), Dr. Amanda Gillon (BioScience Managers), and Ken Jefferd (University of Melbourne)



Where to from here - A vision for the future

From the delivery of the Menzies Foundation programmes over the last 4 years and many other commercialisation development programmes across the Asia Pacific, we know that skills acquisition through experience is the best source of confidence - the ability to say I've done this before', creating the mindset and skills and capabilities to navigate uncertainty. We know and have seen that brilliant talent can achieve outstanding results and returns but we also have seen how at the system level we need more smart risk capital as fuel to drive this success, and we should not look to one vertically integrated player to drive the success of the whole ecosystem, rather we need better coordination and connection.

A common measure of success often sought is increasing the number of high value new companies known as Unicorns, that disrupt industries and sectors and that create innovations that improve lives and drive economic growth. In addition, and taking a view at the individual level, the successful future we see has researchers and scientists having access to diverse career experiences and leadership roles in new high growth science based ventures or in existing companies and institutions, driving innovation and new technology forward achieving both commercial and societal impact.

We see a future where the system is better connected and each organisation and individual can bring and build on their respective strengths, and where there is a greater acceptance of the value of 'failure', learning, and non-traditional paths. Success is built on failure. With space for experimentation and trial within a community of support the learnings of these experiences being embedded into a well functioning, efficient, and mature health and medical science innovation ecosystem.

Australia's ability to lead in health technology innovation lies in creating a robust, synergistic ecosystem that integrates **capital, connectivity, and capability.**

Moving beyond individual successes and ad hoc initiatives, we envision a systemic transformation to position Australia as a global leader in health and medical commercialisation.

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