2024 NSW Commercialisation Showcase

Aerial UTS Function Centre
Wednesday 17 April 2024

NSW GOVERNMENT

2024 NSW Commercialisation Showcase

NSW GOVERNMENT

Order of Proceedings

9:00 AM - 9:10 AM

Acknowledgement of Country and Introduction to the Commercialisation Showcase
Professor Hugh Durrant-Whyte, NSW Chief Scientist & Engineer

9:10 AM - 9:15 AM

Minister's Welcome
The Hon. Anoulack Chanthivong MP, Minister for Innovation, Science and Technology

9:15 AM - 10:00 AM

Showcase: Government innovation and procuring solutions
Presentations from a range of leading NSW businesses regarding their experiences in working with the NSW Government to address important challenges.

10:00 AM - 10:30 AM

Panel: Government and industry collaboration
Panel session exploring successful models of collaboration, trust-building and success between industry and government.

Moderator: Nicholas Haskins (Chief Operating Officer, NSW Smart Sensing Network)

Panel members: Kylie Hargreaves (Chair, Australian Alliance for Energy Productivity; Deputy Chair, Regional Development Australia), Peter Walters (State Fire Risk Manager, Forestry Corporation of NSW), Graham Kingsland (Chief Superintendent Operational Logistics, Fire and Rescue NSW), Amanda Leck (Head Adaptation, Mitigation & Reconstruction, NSW Reconstruction Authority), Edward Parker (Associate Director, DCS Telco Innovation & Strategic Partnerships).

10:30 AM - 11:00 AM

Morning tea

11:00 AM - 12:00 PM

Showcase: Commercialisation programs
Presentations from a range of leading NSW businesses regarding their experiences and learnings receiving government funding and other private investment opportunities.

12:00 PM - 12:15 PM

Presentation: Deep Tech Commercialisation Training Program
Sally-Ann Williams, CEO Cicada Innovations

12:15 PM - 12:45 PM

Panel: Exploring how to accelerate commercialisation in NSW

Moderator: Sally-Ann Williams (CEO, Cicada Innovations)

Panel members: Michael Molinari (Managing Director, IP Group), Prof Glenn Wightwick (Deputy Vice-Chancellor of Enterprise, University of Technology Sydney), Rupal Ismin (Director, Sydney Knowledge Hub), Prof Renate Egan (Executive Director, Australian Centre for Advanced Photovoltaics UNSW Sydney), Mike Nicholls (Partner, Main Sequence Ventures).

12:45 PM - 1:45 PM

Networking lunch

1:45 PM - 2:00 PM

2023 BioSciences Fund Successful Grant Recipient Announcement
Petra Andrén, Chair, BioSciences Fund Expert Panel

2:00 PM - 2:45 PM

Showcase: Commercialisation pitchfest
Three-minute pitches from a range of high performing NSW small businesses that have participated in government innovation programs.

2:45 PM - 2:50 PM

Closing remarks
Professor Hugh Durrant-Whyte, NSW Chief Scientist & Engineer

2:50 PM - 4:00 PM

Networking

Foreword from the NSW Chief Scientist & Engineer

Welcome to the 2024 NSW Commercialisation Showcase.

When I commenced in this role in 2018, a major focus of mine was to ensure that the NSW Government worked closely with our research sector and both emerging and established industry to ensure that innovation was supported to create commercial success and impactful outcomes for NSW.

Today's Showcase celebrates the success of the programs launched since then and lays the foundations for accelerating this industry growth going forward.

These successes include:

- the Physical Sciences Fund, which across four rounds has provided $19 million in support to 18 companies and to date has attracted $126 million in additional investment.
- the Small Business Innovation & Research program, which challenges NSW small businesses to develop innovative solutions to real-world problems facing NSW Government agencies.
- past and ongoing programs supporting natural hazards and bushfire technologies, which have driven collaboration between NSW Government agencies and industry to support developing technologies and field test existing products and services.
- the Quantum Computing Commercialisation Fund, which has provided $6.8 million to three companies to develop their quantum computing innovations, in turn attracting $180 million in additional investment.

Today, we add a new program, with the announcement at the start of our afternoon session of the successful recipients from our newest commercialisation program, the BioSciences Fund.

The Showcase features more than 30 of these companies, with 20 companies represented at display tables during our networking sessions. We will also hear from leaders in government, industry and academia on the ways the NSW Government can better assist and support innovation, and become a customer of impactful technologies tackling real-world problems.

The development and commercial translation of our most innovative technologies is of critical importance to the future success of this state. I encourage you to engage with the many key stakeholders in this room today and look forward to seeing greater collaboration, enabling the establishment and growth of even more innovative new companies in NSW.

Professor Hugh Durrant-Whyte

Physical Sciences Fund

The Physical Sciences Fund (PSF) is a competitive development and commercialisation program for technological innovations in NSW.

NSW has great strengths in research across a wide range of scientific fields. The PSF aims to build on these strengths by supporting the translation of research into devices and systems ready for commercialisation, and deliver significant social, economic and environmental benefits to NSW.

The PSF provides financial support for the development of new and innovative devices and systems within Technology Readiness Levels (TRL) 3 – 7, across the branches of the physical sciences and engineering, including physics, chemistry, astronomy and the earth sciences.

The PSF provides funding support through a competitive process to individuals, companies, research institutes and universities to take local innovations to market.

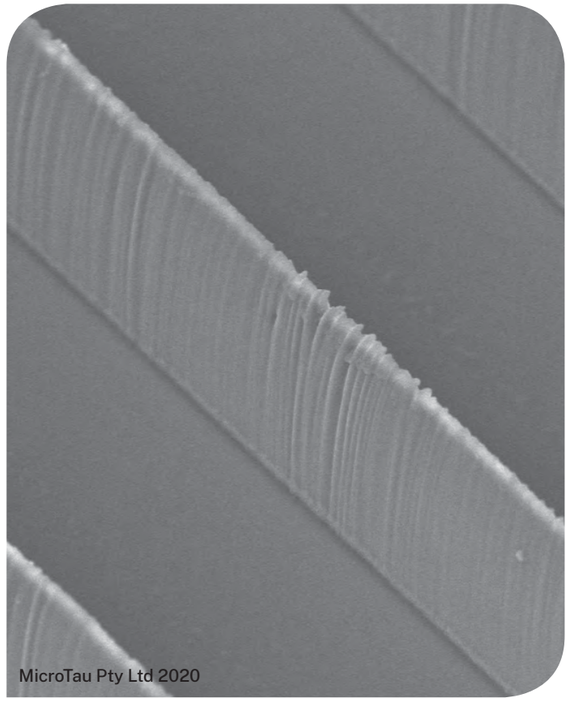
The 2024 round of the PSF is currently accepting applications until 29 April 2024, with the next round to open in 2026.

Company	Device/System	Description	Year
Carbonix	Domani (25kg Powered Lift Drone)	Australia's first heavy-lifting, long-range powered-lift 'small' fixed wing drone. The Domani will be accessible to the general market for Australian businesses and represent a significant innovation in the global market.	2019
Funding Amount: $1,473,000		**Contact:** Philip van der Burg (CEO), 0416 559 052, philip@carbonix.com.au	
Hone	HoneLab and AI Platform	A platform acting as a chemistry lab, HoneLab allows winemakers to make instant decisions about their vintage without having to send the sample to a lab.	2019
Funding Amount: $837,000		**Contact:** Mitchell Reece (Financial Controller), 0425 268 496, mitchell.reece@honeag.com	
NextOre Pty Ltd	Magnetic Resonance Analyser	NextOre's magnetic resonance (MR) analysers are sophisticated devices that use bulk ore sorting to produce real-time, accurate measurements of metal concentration in ore while significantly reducing the amount of resources used downstream.	2019
Funding Amount: $1,070,000		**Contact:** Chris Beal, 0466 563 122, chris.beal@nextore.com.au	
The University of Newcastle	Hydro Harvester: A Novel Device for Atmospheric Water Generation Using Solar Thermal Energy and/or Waste Heat	A simple, low-cost device enabling the production of water from air, significantly reducing the cost per litre.	2019
Funding Amount: $330,000		**Contact:** Prof Behdad Moghtaderi, 02 4033 9062, behdad.moghtaderi@newcastle.edu.au	
UNSW Sydney's SMaRT Centre	SMaRT Microfactory Recycled Glass Panel Line	Reform waste materials into value-added products such as ceramic-based panels for use in the built environment.	2019
Funding Amount: $790,000		**Contact:** Anirban Ghose (Head of Microfactories), 02 9065 6413, anirban.ghose@unsw.edu.au	

Carbonix 2019

Company	Device/System	Description	Year
BioScout	BioScout Automated Airborne Disease Tracking System	An autonomous air sampling unit with an analytic dashboard that can reduce crop disease and damage, increasing yield, by providing farmers with real-time data about the identity, density and location of airborne pathogens in a paddock.	2020
Funding Amount: $627,000		**Contact:** Lewis Collins (CEO), 0401 372 535, lewis@bioscout.com.au	
MicroTau Pty Ltd	Direct Contactless Microfabrication (DCM) Printer	Riblet microstructures inspired by shark skin that can be applied to surfaces such as air and marine vehicles for drag-reduction, reducing fuel, cost and CO2 emissions.	2020
Funding Amount: $980,325		**Contact:** Henry Bilinsky (Founder & CEO), 0402 738 842, henry@microtau.com.au	
Quasar Satellite Technologies	Phased Array Satellite Ground Station as a Service	The phased array satellite communications ground station will be able to communicate with many spacecraft simultaneously, revolutionising the existing service model of one spacecraft at a time per ground station.	2020
Funding Amount: $1,921,675		**Contact:** Dr Ilana Feain (Co-CEO), 0411 639 299	
Zetifi	ZetiCell and ZetiRover	The ZetiCell and ZetiRover provide long range, high speed and reliable connectivity for voice calls and internet access in mobile blackspot locations and/or rural and remote communities.	2020
Funding Amount: $1,471,000		**Contact:** Dan Winson (Founder & CEO), 0410 351 270, dan@zetifi.com	

Zetifi 2020



MicroTau Pty Ltd 2020

Physical Sciences Fund Continued

Company	Device/System	Description	Year
Defy-Hi Robotics	The BEAR (Building Envelope Access Robot)	The BEAR robotic system is designed to do dangerous, dull and dirty work of cleaning and inspecting high-rise buildings safely.	2021
Funding Amount: $800,000		**Contact:** Dr Abbie Widin (Co-Founder), 0407 210 693, abbie@gtmco.com.au	
Azaneo/ Growave	Series Wave One	Transforming weed control for farmers, through a modular boom that integrates with any tractor, offering cost-effective and weather-agnostic weed management.	2021
Funding Amount: $533,000		**Contact:** Liam Hescock (Founder & CEO), same phone, liam@azaneo.com	
Hullbot Pty Ltd	The Hullbot One System	The Hullbot One System performs a diverse range of tasks include daily grooming of hulls, 4D inspections and surveys of underwater structures and environmental management.	2021
Funding Amount: $ 1,058,435		**Contact:** Tom Loefler (CEO), 0402 810 667, tom@hullbot.com	
Hysata Pty Ltd	Next-Generation Water Electrolyser	Hysata is developing a new type of electrolyser that promises to overcome the limitations of existing electrolysers and deliver the world's lowest cost green hydrogen.	2021
Funding Amount: $500,000		**Contact:** Dr Gerry Swiegers (CTO), 0414 338 634, gerry.swiegers@hysata.com	
LLEAF Pty Ltd	LLEAF Technology	LLEAF is developing new agricultural film that optimises the use of one of our biggest natural resources, sunlight, to enhance plant growth.	2021
Funding Amount: $283,480		**Contact:** Alexander Soeriyadi (Co-Founder & CEO), 0425 256 988, alex.soeriyadi@lleaf.com.au	
Roobuck Pty Ltd	Long-Range High-Rate Wi-Fi System	Roobuck and The University of Sydney are collaborating to commercialise the world's first long-range high-rate WiFi system compatible with conventional WiFi devices, increasing both productivity and safety.	2021
Funding Amount: $800,000		**Contact:** Henry Gong (Co-Founder & CEO), 0431 793 535, henryg@roobuck.com.au	
Sensortine Pty Ltd trading as MPT AgTech	MPT AgTech 'Smart Seeder'	The MPT AgTech 'Smart Seeder' integrates soil moisture sensing technology into a self-adjusting seeder to accurately manage seed placement.	2021
Funding Amount: $703,590		**Contact:** David Finlay (Founder & CEO), 0417 920 803, david@moistureplant.com	

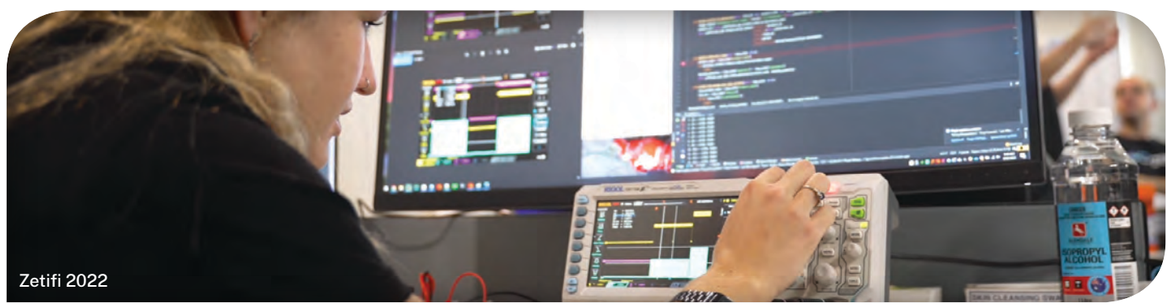

LLEAF Pty Ltd 2021

Sensortine Pty Ltd 2021


SiteHive 2022

Hysata Pty Ltd 2022

Company	Device/System	Description	Year
Hysata Pty Ltd	Next-Generation Water Electrolyser	The electrolyser, now with an optimised membrane component, will deliver the world's lowest cost green hydrogen with increased output.	2022
Funding Amount: $1,000,000		**Contact:** Paul Barrett (CEO), 0413 991 322, paul.barrett@hysata.com	
SiteHive	Real-time Environmental Management	SiteHive has developed a digital, multi-sensor monitor that allows them to make quick, confident decisions from wherever they are, and proactively prevent potential environmental incidents occurring.	2022
Funding Amount: $1,120,000		**Contact:** Ben Cooper-Woolley (Co-Founder), 0403 569 818, ben@sitehive.co	
The Yield Technology Solutions	Agrifood Optimisation Platform	The Yield's 'Digital Playbooks' provide land managers with on-farm yield productions and recommendations using AI based on real weather data and the agronomical needs of crops, reducing the impacts of uncertainty created by weather on food waste across the entire food supply chain.	2022
Funding Amount: $1,780,000		**Contact:** Ros Harvey (Founder & CEO), 0409 348 264/+1 415 653 2664 (US), ros.harvey@theyield.com	
Zetifi	ZetiLink (Intelligent RF Platform for connected and autonomous vehicles)	ZetiLink is a new platform which uses vehicular radiofrequency (RF) technology and machine learning to actively and intelligently determine the optimal configuration for a vehicle.	2022
Funding Amount: $1,100,000		**Contact:** Dan Winson (Founder & CEO), 0410 351 270, dan@zetifi.com	


Zetifi 2022

Small Business Innovation & Research program

The Small Business Innovation & Research (SBIR) program is a competitive phased grants program. The SBIR program involves NSW Government agencies posing challenges they are not able to adequately address with existing approaches or commercially available technologies. NSW small and medium-sized enterprises (SMEs) apply to the SBIR program with their proposed solution. Participating SMEs receive a grant to work with the agency to solve the challenge. At the end of the SBIR program, agencies are encouraged to pilot the technology at scale and consider procurement.

The SBIR program is ongoing.

Proof of Concept

Company	Challenge	Description	Year
3rd Axis	PPE Challenge	Patented 3D-printed ceramic extrusion technology to recycle plastic waste such as PPE into high value filament cord used as feedstock in 3D printing.	2021
Funding Amount: $1,000,000		**Contact:** Ashish Jain (Director), 0458 557 517, ash@3rdaxis.com.au	
Advanced Navigation	Hyperlocal Navigation Challenge	Advanced Navigation's technology provides accurate location information within NSW transport hubs for users with vision impairments.	2021
Funding Amount: $1,000,000		**Contact:** Christopher Shaw (CEO), 02 0900 3800, chris.shaw@advancednavigation.com	
AusAir	PPE Challenge	A range of biodegradable surgical respirators, masks and gowns to address excessive waste from discarded PPE.	2021
Funding Amount: $882,865		**Contact:** Isaac Honor (Director), 0404 433 859, isaac@ausmark.com	
BindiMaps	Hyperlocal Navigation Challenge	Provides wayfinding and navigation services in complicated indoor and outdoor spaces for users with disabilities.	2021
Funding Amount: $1,000,000		**Contact:** Dr Anna Wright (Co-Founder & CEO), 0412006427, anna@bindimaps.com	
Biodiversity Monitoring Services	Koala Count Challenge	Novel, bio-inspired acoustic sensing technology that will be used to create a more active, targeted and efficient monitoring device for koala calls.	2021
Funding Amount: $999,940		**Contact:** Andrew Lothian (Director/Pricnipal Ecologist), 0421 841 726, andrew.lothian@biodiversitymonitoring.com.au	
Infinite Water	Water Purification Challenge	A water recycling system, which removes over 99 per cent of all plastic microfibres from laundry wastewater, producing high quality recycled water for reuse.	2021
Funding Amount: $971,227			
Innovations for Humanity	Connectivity Challenge	A low-cost user terminal antenna system that will provide high data rate connectivity from a range of current and emerging satellite constellations.	2021
Funding Amount: $1,000,000		**Contact:** Karu Esselle (Director), 0423 034 302, karu.esselle@uts.ed.au	
Ninox Robotics	Koala Count Challenge	Long-range drones with advanced thermal imaging cameras to accurately monitor koalas over large and previously inaccessible areas across the state.	2021
Funding Amount: $980,350		**Contact:** Marcus Ehrlich (MD), 0408 991 563, marcus.ehrlich@ninox-robotics.com	
PEGRAS	Water Purification Challenge	PEGRAS provides at-the-source treatment of sewage from industrial processes. It traps nano and microplastics and other suspended particles.	2021
Funding Amount: $1,000,000		**Contact:** Ian Byrne (Director), 0419 876 416, ian.byrne@pegras.com	
Zetifi	Connectivity Challenge	A suite of solar-powered wireless network devices and systems that use long range Wi-Fi to provide coverage in low population density areas.	2021
Funding Amount: $997,500		**Contact:** Dan Winson (Founder & CEO), 0410 351 270, dan@zetifi.com	

AusAir 2021


Ninox Robotics 2021

Feasibility Study Grants

Company	Challenge	Description	Year
3 Aim Solutions	Vital Signs Monitoring Challenge	A mmWave radar solution paired with AI to monitor vital signs and other key metrics to detect potential irregularities.	2023
Funding Amount: $100,000		**Contact:** Neil Anderson (CEO), neil@saiiv.com	
Advitech	Waste Recovery and Management Challenge	Modular bins that use an AI system to only accept waste of a particular stream.	2023
Funding Amount: $100,000		**Contact:** Glenn Platt (Executive Director), glenn.platt@emergentgroup.com.au	
Cultural Pulse Tech Group	Cultural and Linguistic Diversity Services Challenge	Voice-to-text transcription, translation and AI machine learning that improves multicultural patient experiences during antenatal visits.	2023
Funding Amount: $86,250		**Contact:** Reg Raghavan (CEO), reg@culturalpulse.com.au	
Eco Shield Systems	Urban Heat Island Challenge	Porous vertical greening systems to mitigate urban heat and increase biodiversity.	2023
Funding Amount: $100,000		**Contact:** Daniel Griffin (Director), daniel@ecoshieldsystems.com	
Rosella Street	Recycled Content Verification Challenge	A Digital Product Passport to support purchasing decisions on products containing recycled material and links to product directories or purchasing platforms.	2023
Funding Amount: $100,000		**Contact:** Mick Fritschy (Co-Founder & Director), hey@rosellastreet.com	
Hi-Vis	School Zones Alerting System Challenge	An edge controller with the capacity to retrofit with the School Zones Alerting System.	2023
Funding Amount: $64,480		**Contact:** Luke Sasse (LED Product Manager), lukesasse@hivis.com	
Intelligent System Design	Biosecurity Surveillance Challenge	A mobile application equipped with AI to detect and classify exotic pests.	2023
Funding Amount: $99,917		**Contact:** Julian van den Berg (CEO), julian@intelligentsystemdesign.com.au	
Plantabox	Urban Heat Island Challenge	A removable garden system to mitigate urban heat.	2023
Funding Amount: $100,000		**Contact:** Ben Perry (Design Director), ben@plantabox.com.au	
QBL Media	Cultural and Linguistic Diversity Services Challenge	Voice-to-text transcription, translation and analysis software to facilitate communication during antenatal visits and the multicultural patient experience.	2023
Funding Amount: $96,898		**Contact:** Tat Banerjee (MD), tbanerjee@videotranslator.ai	
Tensile Constructions	Urban Heat Island Challenge	Modular cooling system to mitigate urban heat.	2023
Funding Amount: $100,000		**Contact:** Peter Bottero (MD), pbottero@tensile.com.au	
Vital Photonics	Vital Signs Monitoring Challenge	A photonic-enhanced radar sensor paired with AI to monitor vital signs and detect potential irregularities.	2023
Funding Amount: $99,653		**Contact:** Professor Benjamin Eggleton, benjamin.eggleton@sydney.edu.au	

Bushfire Technology Pilots Program

The NSW Government established the Bushfire Technology Pilots Program (BTPP) under the NSW Bushfire Response R&D Mission to enable both existing and new bushfire technologies to be field-tested and evaluated by frontline NSW bushfire services.

The objective of the BTPP was to enable businesses to:

- commercialise field-ready technology for bushfire-related applications through the trial or pilot of technology with end-user agencies in NSW
- improve end-user agencies' awareness of innovation possibilities in bushfire management and operations through exposure to new technology.

The BTPP has now concluded.

Company	Device/System	Description	Year
Decon Technologies	Smart Power Cell (SPC)	Providing remote controlled solar power for sites where supply is damaged by bushfires or where permanent power supply is yet to be established.	2022
Funding Amount: $95,420		**Contact:** Brett Matheson (Executive GM), brettmatheson@deconcorp.com.au	
Diffuse Energy	Hyland Wind Turbine	Unique wind turbine design,delivering clean and renewable power for remote telecommunication sites.	2022
Funding Amount: $100,000		**Contact:** James Bradley (CTO), james.bradley@diffuse-energy.com	
Meshed Pty Ltd	Fire Hazard and Environmental Monitoring Kit	Evaluating weather and fuel conditions via a network of sensors and long range WIFI for early detection of fires.	2022
Funding Amount: $78,050		**Contact:** Catherine Caruana-McManus (Director Sales & Strategy), sales@meshed.com.au	
Oneblink/ Know-Where	Good-To-Go-BTPP Round 1	Ensuring emergency personnel have all the necessary equipment in the field using RFID tags and handheld readers.	2022
Funding Amount: $96,000		**Contact:** Darren Besgrove (Director), darren@oneblink.io	
Unleash Live	Live Stream AI Analysis	Improving decision making by providing tailored analysis from multiple live-streamed data/video that provide an instant overview of the emergency situation.	2022
Funding Amount: $16,420		**Contact:** Hanno Blankenstein (CEO), getstarted@unleashlive.com	

Unleash Live 2022

Company	Device/System	Description	Year
Airborne Mission Systems (AMS)	AFDAU-TI Data Acquisition Unit	An onboard aircraft data platform capturing real-time information, improving communication capabilities, safety and decision making.	2023
Funding Amount: $97,887		**Contact:** Levi Vohland (Co-Founder), levi@ams-aus.com	
Australian UAV Technologies	Ears & Eyes over the fireground (Flamingo Mk3)	Fully autonomous fixed wing aircraft that can improve communications and situational awareness to ground crew using RPAS technology during emergencies.	2023
Funding Amount: $218,800		**Contact:** Gerry Gerlach (CEO), gerry.gerlach@silvertone.com.au	
BIOSCOUT	FireScout	Improving bushfire detection and air quality monitoring using autonomous air sampling units developed for the agricultural sector, adapted to detect bushfires from microsopic imaging of air samples.	2023
Funding Amount: $250,000		**Contact:** Dr Michelle Demers (Head of Science), michelle@bioscout.com.au	
FireFront Solutions	FireMapper - Interagency Situational Awareness Capability	Providing interagency real-time situational awareness capability, and electronic mapping and information of the emergency situation.	2023
Funding Amount: $219,700		**Contact:** Konrad Gebels (MD), konrad@firefront.com.au	
Flaim Systems	Flaim Trainer -Wildfire	Providing immersive and interactive training for bushfire volunteers and staff through a new VR training module.	2023
Funding Amount: $250,000		**Contact:** Glenn Nelson (Program Manager), glenn.nelson@flaimsystems.com	
Kablamo	Remote Ignition Detection in High-Risk Areas	Validating new fire alerts quickly by analysing satellite data and secondary sources, together with fire prediction modelling to provide decision makers with information on potential risk.	2023
Funding Amount: $250,000		**Contact:** Clare Burrows (Business Dev. Manager), clare.burrows@kablamo.com.au	
Kablamo	Bushfire & smoke image recognition engine	Providing tailored intelligence to firefighters for improved on-the-ground awareness during emergencies.	2023
Funding Amount: $250,000		**Contact:** Clare Burrows (Business Dev. Manager), clare.burrows@kablamo.com.au	
Milvus Fire Units	Milvus Remote Area Fire Unit	Enabling firefighting in remote areas with limited access to equipment and water.	2023
Funding Amount: $150,000		**Contact:** Kenneth Evans (Director), milvusfire@gmail.com	
Oneblink/ Know-Where	Good-To-Go-BTPP Round 2	Building on their successful pilot in BTPP Round 1 to connect their asset and maintenance system into corporate systems used by all NSW Government agencies.	2023
Funding Amount: $250,000		**Contact:** Darren Besgrove (Director), darren@oneblink.io	

FireFront Solutions 2023

Bushfire Commercialisation Fund

The NSW Government established the Bushfire Commercialisation Fund (BCF) under the NSW Bushfire Response R&D Mission to accelerate the development, commercialisation and adoption of bushfire technologies and services in NSW.

The objective of the BCF was to enable businesses to:

- progress bushfire technology along the commercialisation pathway, or
- adapt existing technology for use in bushfire management or operations

The BCF targeted innovative devices/systems within Technology Readiness Level (TRL) 3 – 7 to help them move along the TRL scale and enable them to attract large-scale private investment.

The BCF provided funding support through a competitive process to individuals, companies, research institutes and universities to take local innovations to market.

The BCF has now concluded.

Company	Device/System	Description	Year
FireFront Pty Ltd	FireMapper	An offline electronic mapping solution, integated into FireMapper to provide crucial real-time fireground information using mobile devices as a 'mesh' network from personnel in the field.	2023
Funding Amount: $431,000		**Contact:** Konrad Gebels (MD), konrad@firefront.com.au	
Halsyon Pty Ltd	Responder HQ	Resource management tool to help teams efficiently plan, coordinate, and deploy people and vehicles during emergencies.	2023
Funding Amount: $581,000		**Contact:** Matthew Pope (CEO), matthew.pope@responderhq.com.au	
SiNAB	Phoenix Pod	Fully integrated, self-contained sensor and rapid air-to-ground communication system that can attach to aircraft to provide intelligence, surveillance and reconnaissance capabilities commonly used in Defence.	2023
Funding Amount: $215,400		**Contact:** Peter Axiotis (Project Lead), paxiotis@sinab.com	
Urban Research and Planning	Refuge software-as-a-service	Software to better manage community safety and evacuation from natural hazards by providing up-to-date evacuation and avoidance routes.	2023
Funding Amount: $50,000		**Contact:** Dr Kam Tara (CEO), kam@urap.com.au	
Zetifi	Connecting Bushfire Operations	Building on ZetiLink to deliver last-mile connectivity for fireground management and operations.	2023
Funding Amount: $1,000,000		**Contact:** Dan Winson (Founder & CEO), 0410 351 270, dan@zetifi.com	

SiNAB 2023

Quantum Computing Commercialisation Fund

NSW Government has strategically invested in a number of initiatives to support the formation of a global quantum ecosystem in NSW, showing thought leadership for the sector including investment in research, infrastructure and skills development.

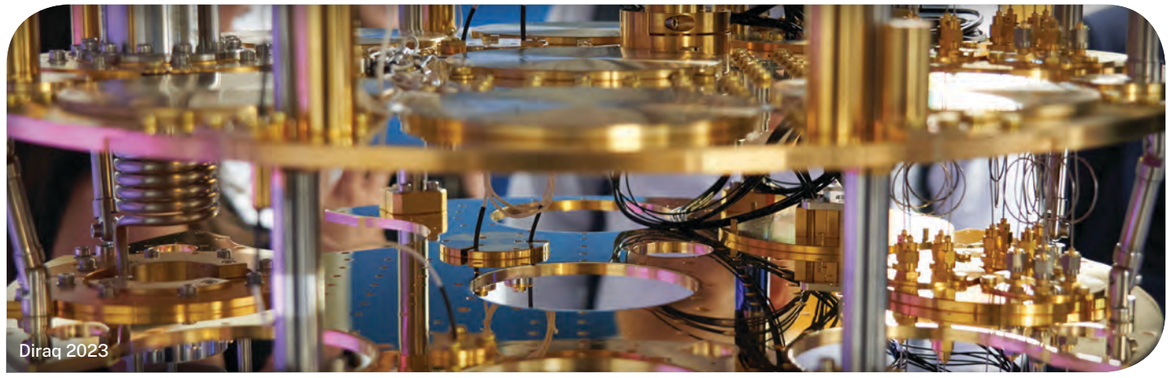
NSW possesses the full complement of quantum computing capabilities, from theory and software to hardware, and is home to one of the largest cohorts of quantum talent internationally.

Quantum computing has been identified under both the *NSW 20-Year R&D Roadmap* and *NSW Industry Development Framework* as a high-value sector where NSW has a competitive advantage.

The NSW Quantum Computing Commercialisation Fund (QCCF) was a $7 million, single round, competitive technology development and commercialisation program focused on quantum computing funded by the NSW Government.

The QCCF has now concluded.

Company	Device/System	Description	Year
Diraq	Cloud-Accessible Silicon Quantum Processor	Advance towards commercialisation a 10-qubit silicon processor over a three-year period, supporting the company's overall mission to bring an "ultra-powerful quatum computers into existance".	2023
Funding Amount: $3,004,551		**Contact:** Prof Andrew Dzurak (Founder & CEO), 0432 405 434, andrew@diraq.com	
Q-CTRL	Delivering value to financial services through hybrid quantum computing	A hybrid quantum computing software as a service solution for the financial sector, helping to solve high-value optimisation problems by neutralising errors prevelant in available hybrid quantum computers.	2023
Funding Amount: $2,342,202		**Contact:** Prof Michael Biercuk (Founder & CEO), michael.biercuk@sydney.edu.au	
Quantum Brilliance	Qristal Emulator	A software package that runs on regular classical computers and provides realistic emulation of quantum hardware, allowing users to design quantum algorithms that solve computational problems using the inherent properties of quantum systems (e.g. entanglement).	2023
Funding Amount: $1,445,000		**Contact:** Dr Sam Butler (Public Sector Development Lead), 0400 172 172, sam.butler@quantum-brilliance.com	



Diraq 2023

BioSciences Fund

The Biosciences Fund (BioSF) is a competitive technology development and commercialisation program funded by the NSW Government and administered by the Office of the NSW Chief Scientist & Engineer.

The objective of the BioSF is to progress new and innovative devices and systems towards commercialisation within NSW across the branches of the biological sciences (biotechnology and life sciences), including biomanufacturing, genetic engineering, synthetic biology and agrifood.

The BioSF targets innovative devices/systems within Technology Readiness Levels (TRL) 3 – 7 and aims to help them move along the TRL scale, to commercialise their idea and attract large-scale private investment.

In 2023/24 the BioSF is providing $4.5 million funding for grants of between $200,000 to $2 million.

The BioSF will open for a second round in early 2025.

Foreword from the BioSciences Fund Expert Panel Chair

Leading the Expert Panel for the BioSciences Fund's inaugural year has been an honour, marked by a remarkable influx of high-quality applicants. This program serves as a beacon for recognising innovative ideas in the biological sciences, aiming to transition them into mature investment opportunities in NSW through effective commercialisation strategies.

Among this year's winners, projects have showcased ground-breaking advancements in personalised cell therapies for neurological disorders like Alzheimer's, a novel antiplatelet drug for complex stroke cases and an AI tool to discover, design and optimise RNA-targeted drugs. Each project offers unique solutions addressing current challenges in healthcare, promising broad societal benefits.

I extend heartfelt gratitude to my esteemed colleagues on the Expert Panel: Dr Steve Burnell, Dr Jess Smith and Dr Phil Wright. Working alongside such a professional and experienced team has enriched our deliberations.

Acknowledgements are also due to the BioSciences Fund Sub-Committee for their invaluable assistance in evaluating applications and refining our review process, ensuring the selection of impactful projects.

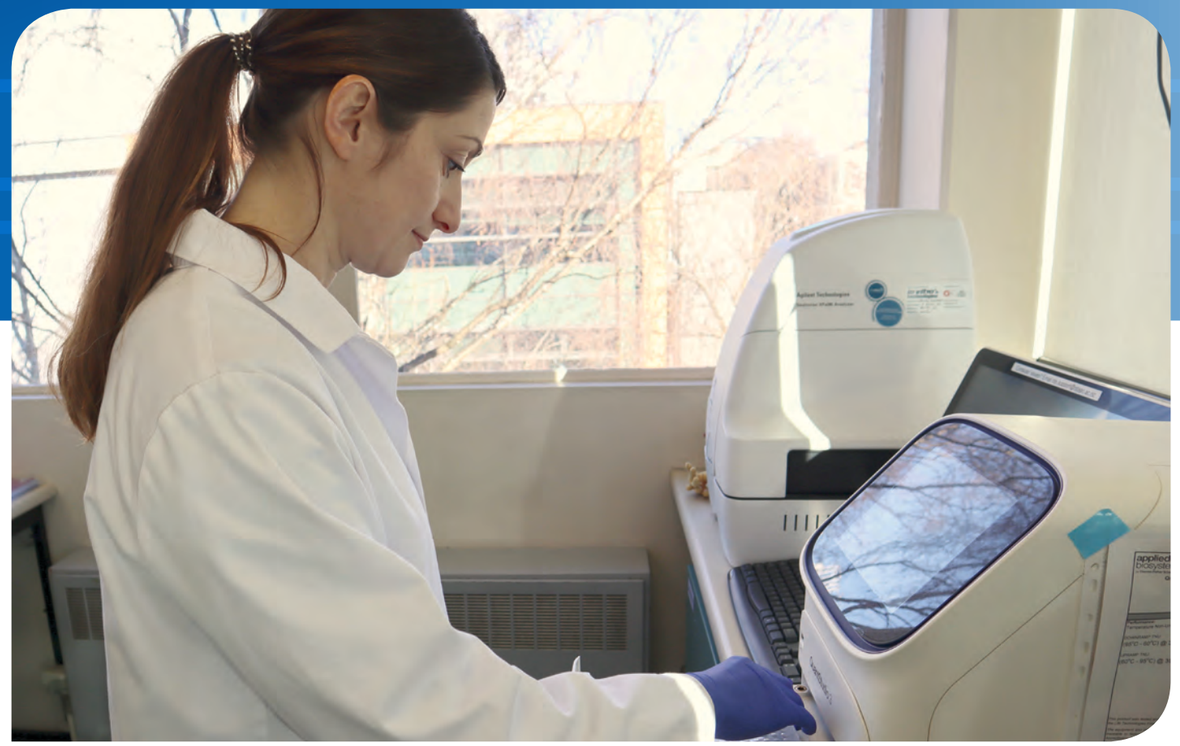
The BioSciences Fund's success in translating science into industry underscores the passion and advocacy of the NSW Chief Scientist & Engineer, Professor Hugh Durrant-Whyte, and his team. Their unwavering support has been instrumental in driving innovation and fostering collaboration within the scientific community.

Petra Andrén

BioSciences Fund

RNAfold.AI
Funding Amount: $1,025,238

By harnessing the power of AI, RNAfold.AI is revolutionising drug discovery.



To tackle challenges in drug discovery and design, RNAfold.AI have developed a suite of AI algorithms capable of optimising new RNA targeting drugs all the way to clinical trials, even for previously 'undruggable' protein targets.

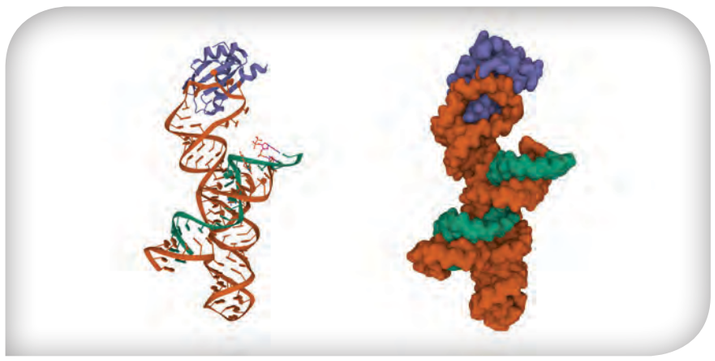
Initially, RNAfold.AI will focus on oncology, a leading cause of mortality. However, the software package has the potential to identify drivers in other adverse and complex health disorders, too.

RNAfold.AI utilises AI to predict the secondary structure of RNA molecules, integrating the thermodynamic model of RNA folding with pharmacological compounds. The AI platform is trained on comprehensive data to experimentally identify a lead for RNA therapeutics with significantly higher accuracy compared to current experiential trial-and-error approach, thereby enhancing development cost and time efficiency.

RNAfold.AI will use the funding to create a distinctive database by integrating information from RNA biology literature, molecular data and therapeutically informative experiments. This unique database will be further enriched with their sequencing and experimental data to train the AI assistant, streamlining discovery processes, enhancing success rates and facilitating the design of new chemistries.

By minimising the number of compounds required for screening and licensing their in-house developed drugs at preclinical stages, RNAfold.AI will become a valuable partner in advancing NSW as an emerging biotechnology hub.

www.rnafold.ai



RNAfold.AI

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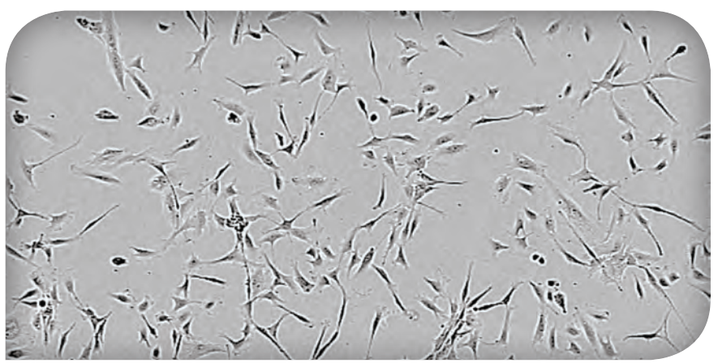
BioSciences Fund

Skin2Neuron
Funding Amount: $1,996,762

Skin2Neuron is pioneering neurorestorative cell therapy for the brain aimed at reversing cognitive impairment and improving quality of life. Our unique technology isolates, enriches and expands a rare neurogenic cell type we recently discovered in the human hair follicle.

www.skin2neuron.org



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Alzheimer's disease stands out as one of humanity's most pressing health challenges, with no clinically meaningful treatment available to counter its relentless decline.

Skin2Neuron (S2N) is a NSW-based biotech company focused on developing all-new regenerative medicine technology for Alzheimer's disease and beyond.

The company's core technology (Primaverah©) is a process for manufacturing Hair Follicle-derived Neuroprecursors (HFNs) – a novel cell type discovered by our team with the potential to revolutionise the treatment of brain disorders. This pioneering approach starts with adult hair follicles, and is uniquely capable of the isolation, enrichment and expansion of these rare cells.

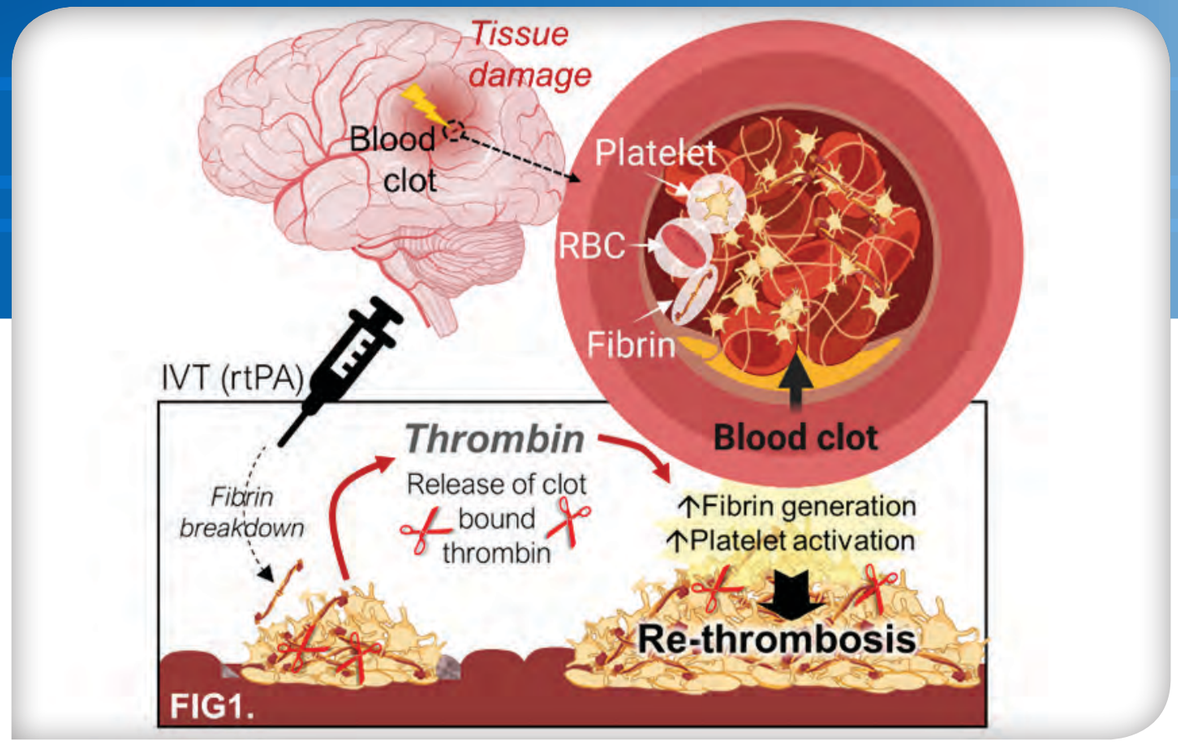
The final product is a clinically relevant number of HFN cells of exceptional purity. The company's preclinical research has shown the cells can replace lost neurons and synapses in ageing and disease and reverse memory deficits. With the potential to bring back cognition and enhance quality of life, S2N hopes to open up a whole new class of treatment: the anti-dementia biologic.

This innovative technology is only the first of several therapies in the pipeline. The funding will expedite S2N's critical development, scaling up and automating manufacture, helping to bring this new technology closer to clinical trial and then the global market. S2N's long-term vision is to develop next-generation cell therapies for brain disorders such as Alzheimer's, Parkinson's and Huntington's disease.

BioSciences Fund

ThromBio
Funding Amount: $1,478,000

ThromBio's groundbreaking antiplatelet agent, distinguished by its unparalleled safety profile, presents a significant opportunity for Australia in stroke therapy worldwide.



Stroke represents one of the most pressing health challenges globally, with over 12 million new cases annually. There are very few safe and effective treatments, with less than 10 per cent of patients benefiting from current standard of care. For over 40 years the pharmaceutical industry has tried to develop safe and effective anticlotting agents that can be used in the hyperacute treatment of stroke, however all agents tested to date cause life-threatening bleeding on the brain, which has a high mortality rate.

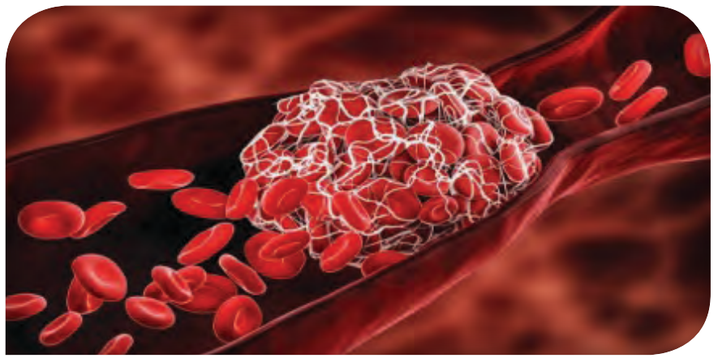
At ThromBio, we leverage research led by Professors Shaun Jackson and Richard Payne, renowned experts in thrombotic disorders, to address this challenge. Our portfolio of first-in-class compounds is characterised by a unique mechanism of action, and potentially represents a significant leap forward in the treatment of ischemic strokes.

Our small molecule New Chemical Entity, TBO-309 has now treated 10 patients, with promising early results (STARS - Safety and Tolerability of Adjunctive TBO-309 in Reperfusion for Stroke). The study commenced in late 2023 in leading stroke units in NSW, Victoria and South Australia.

The funding will support a Phase II clinical study, Co-STARS, to determine the optimal clinical dose of TBO-309 and further commercial discussions with potential partners for drug combination, mono-therapy and stent (device) collaborations.

With no new approved pharmacological therapy for the hyperacute treatment for stroke since 1996, ThromBio's potentially landmark antiplatelet agent, distinguished by its unprecedented safety profile, offers a unique opportunity for Australia. Success in the Phase II clinical trial could potentially revolutionise the global standard of care for stroke, leading to significant life-saving impacts and economic benefits.

www.thrombio.com.au



ThromBio

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BioSciences Fund Expert Panel

Chair: Petra Andrén, Founder and CEO, STING Advisory Pty Ltd

In addition to her leadership role at STING Advisory Pty Ltd, Petra is the Non-Executive Director of Bionics Gamechangers Australia. Petra brings expertise from a broad portfolio of previous roles including as the Head of Innovation Districts, Greater Cities Commission, Non-Executive Director at Ena Respiratory, and CEO and Managing Director of Cicada Innovations. She is an expert in early stage investing, acting as an investor and mentor at Startmate and an honorary board member of the Swedish Australian Chamber of Commerce.

Petra is an innovation leader with over 25 years of experience in international markets and advanced technology sectors. She has a diverse skill set as an experienced board member, accomplished investor and business builder.

Steve Burnell, Managing Director, Tenmile

Steve sits on the Advisory Board for Tattarang, an investment management group interested in health-related technology. He is also the Director of OceanOmics at the Minderoo Foundation, an NGO advancing gender equality while responding to emerging ecological challenges.

Steve is a Senior Executive with a passion for the intersection of technology with healthcare and conservation, supporting various innovative healthcare businesses while simultaneously working to support the environment.

Dr Jess Smith, Investment Manager, Brandon Capital

Jess is the Director of Vaxxas and an Investment Manager at Brandon Capital. She was previously a Board Member of the Royal Australian Chemical Institute and Senior Associate Patent Attorney at FB Rice.

Jess has been a chair and active committee member in many science and technology initiatives such as the AusBiotech Women in Life Sciences. She has an innate passion for innovation, which has been developed through academia and industry experience, and a strong desire to see new scientific technologies translated to real world patient outcomes.

Dr Philip Wright, Former Chief Scientist, NSW Department of Primary Industries, now retired

Prior to his DPI role, Phil was the Principal Director of Science and Research at the NSW Department of Industry and Investment. He has an Executive Masters in Public Administration from the University of Sydney and a PhD in Crop Physiology from the University of New England.

Philip is a senior public sector leader with over 24 years of experience and expertise in science leadership, strategic management, and science and innovation delivery.

BioSciences Fund Sub-Committee

Chair: Anne O'Neill, Acting Executive Director, Enterprise and International Partnerships, Office for Health and Medical Research, NSW Health

Anne is responsible for leading the development and implementation of major policies and programs to enhance medical research capacity in NSW. She leads the NSW Medical Devices Fund and NSW Health's Commercialisation Training Program.

Geoff Bell, Chief Executive Officer, MicroBioGen

Geoff is an expert in understanding market dynamics, process costs, team management and risks associated with the commercialisation of new technology. He facilitated MicroBioGen's transformation from a pure research group into an international commercial success in the biofuels industry.

Professor Fariba Dehghani, Director of Centre for Advanced Food Engineering and Director of Bioengineering Research, The University of Sydney

Fariba is Director of the Centre of Excellence in Advanced Food Engineering in the Faculty of Engineering. She leads a multidisciplinary bioengineering research team focused on developing technologies for nutritional food products and biomaterials, with particular emphasis on tissue engineering and regenerative medicine.

Mary Frey, Commercialisation, Manager Health & Biosecurity, CSIRO

Mary was a founding shareholder in Australia's first biological stem cell storage facility, Cryosite. She is an expert in the field of immunodiagnostics and has established ISO 9001/TGA approved production facilities in the area of biological reagents for export to worldwide markets both in Australia and New Zealand, holding the position of Managing Director for both companies, collectively known as PABCO.

Anna Grocholsky, Director, Commercialisation, Heart Research Institute

Anna is an experienced strategist, negotiator, and intellectual property specialist. With a materials science background Anna then broadened her skills and qualifications through management, creative problem solving, law and business.

Duncan Macinnis, Director, Stakeholder Engagement (NSW and ACT), MTPConnect

Duncan has extensive experience in scientific research, development and commercialisation and external engagement. He holds a PhD from WSU, a Bachelor of Advanced Science with Honours (Biochemistry and Molecular Biology) from UNSW and a Graduate Diploma in Business Administration from the Australian Institute of Business.

Professor Brett Neilan, Chair, Global Innovation (Biotechnology) and Associate Dean for Research, The University of Newcastle

Brett is an expert in the areas of molecular microbiology, genetic and genomic engineering and microbial chemistry. Brett's current research aims to discover, characterise and produce novel microbial pathways for the utilisation of farm waste and production of valuable organic compounds.

Alisa Selimovic, Senior Investment Manager, Life Sciences, IP Group PLC

Alisa joined IP Group Australia from the University of Sydney where she was the Business Development Manager for the Faculty of Medicine. Alisa holds a DPhil in Biomedical Engineering from Oxford, and a Bachelor of Life Sciences from Flinders University.


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