

# Minister's Approval for Industry Laureate Fellowships for Funding Commencing in 2024 Schedule

Approved Organisation, Leader of Approved Research Program  (Columns 1 and 2)	Approved Research Program  (Column 3)	Estimated and Approved Expenditure (\$)		Indicative Funding (\$)			Total (\$)	Industry Partner(s)
		2024-25 (Column 4)	2025-26* (Column 5)	2026-27* (Column 6)	2027-28* (Column 7)	2028-29* (Column 8)	(Column 9)	(Column 10)

## New South Wales

### The University of New South Wales

IL240100030 Keith, Prof David A	<b>Foundations for leading the nature positive ecosystem conservation agenda</b> Ecosystems, vital to biodiversity and human wellbeing, are undergoing accelerated degradation. In 2022, 196 countries agreed to redress this crisis with renewed emphasis on ecosystem management and restoration. Australia's lack of a fit-for-purpose ecosystem inventory hampers its ability to meet its commitment. Ahead of 2030 reporting milestones, this timely Fellowship will equip Australia with rigorous scientific foundations to support national strategies for ecosystem protection, management and restoration. It will deliver state-of the-art ecosystem data streams, advanced skills capacity and ground-breaking thematic risk assessments. These Australian innovations for ecosystem conservation will influence nature-positive agendas worldwide.	670,000.00	470,000.00	470,000.00	470,000.00	470,000.00	2,550,000.00	DEPARTMENT OF CLIMATE CHANGE, ENERGY, THE ENVIRONMENT AND WATER, INTERNATIONAL UNION FOR CONSERVATION OF NATURE, DEPARTMENT OF ENERGY, ENVIRONMENT AND CLIMATE ACTION, DEPARTMENT FOR ENVIRONMENT AND WATER, DEPARTMENT OF BIODIVERSITY CONSERVATION AND ATTRACTIONS, DEPARTMENT OF PLANNING AND ENVIRONMENT NSW, DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT TASMANIA
------------------------------------	---	------------	------------	------------	------------	------------	--------------	--

#### National Interest Test Statement

Australian ecosystems are under increasing pressure, causing declines in biodiversity and natural capital. These assets are vital to Australia's culture and economy. According to Australia's new Nature Positive Plan, failure to prevent ongoing decline stems from inadequate whole-ecosystem management which is linked to a lack of fit-for-purpose national ecosystem inventory. This Fellowship will work with Commonwealth, state and international partners to overcome this gap and build capacity for nature-positive ecosystem management. Key project outputs include: 1 The first comprehensive, consistent national classification and map of ecosystems 2 State-of-the-art protocols for tracking ecosystem change 3 Training tools and activities to upskill government industry and community in use of ecosystem information 4 National ecosystem risk assessments to guide strategic risk-reduction This new research will be translated and adopted through transformational improvements in the National Reserve System, statutory protection of threatened ecosystems, ecologically sustainable development, investments in ecosystem restoration, climate change adaptation and more. Australian leadership on international 2030 conservation targets and global uptake in conservation policy and research agendas will globalise the research impact. This groundbreaking applied research will help sustain healthy ecosystems, with associated benefits to the health, social, economic and cultural wellbeing of Australians.

IL240100091 Gooding, Prof John J	<b>One biosensing technology for the continuous monitoring of many biomarkers</b> It has long been a goal to develop sensors that can continuously monitor biomarkers in complex samples because they would revolutionise environmental monitoring, food processing, biosecurity, infection detection and more. Electrochemical biosensors that employ DNA binding molecules have recently been able to achieve this goal. This fellowship and Nutromics Pty Ltd, a pioneer of electrochemical DNA sensors, will together solve surface chemistry challenges that	748,556.00	754,804.00	755,804.00	759,804.00	730,924.00	3,749,892.00	NUTROMICS PTY LTD
-------------------------------------	--	------------	------------	------------	------------	------------	--------------	-------------------

# Minister's Approval for Industry Laureate Fellowships for Funding Commencing in 2024 Schedule

Approved Organisation, Leader of Approved Research Program  (Columns 1 and 2)	Approved Research Program  (Column 3)	Estimated and Approved Expenditure (\$)		Indicative Funding (\$)			Total (\$)	Industry Partner(s)
		2024-25 (Column 4)	2025-26* (Column 5)	2026-27* (Column 6)	2027-28* (Column 7)	2028-29* (Column 8)	(Column 9)	(Column 10)
	will allow continuous sensing to be commercialised for the target market of wearable biochemical sensors. Nutromics will also develop a facility for other companies to commercialise DNA sensors for different applications so as to make Australia them world leaders in wearable sensors.							
	<b>National Interest Test Statement</b> Being able to continuously monitor molecular species in biological samples was an unmet sensing need for decades until the invention in 2017 of electrochemical sensors that use sequences of DNA, called aptamers, to selectively and reversibly bind to molecules of interest. Melbourne based Nutromics have licensed this IP to commercialise this powerful technology. The proposed research will achieve this through understanding how the sensing interface operates at the single molecule level and using this knowledge to develop surface chemistries to make the aptamer sensors easier to manufacture, more reproducible, more stable and able to detect proteins as well as small molecules. Nutromics will leverage this research to bring this technology to their market of wearable sensors for personalised wellbeing. They will also build a facility to expedite commercialization of the technology by other companies concentrating on different markets. The implications of Nutromic's success will be to revolutionise environmental monitoring, food processing, biosecurity, infection detection and wellbeing. The outcomes of this research will include commercial devices sold globally, training of the next generation of entrepreneurial researchers and the building of a sensing ecosystem right here in Australia. This will place Australia as the global leader in this powerful new era of wearable sensors that can continuously monitor analytes, a market worth many billions of dollars.							
	<b>The University of New South Wales</b>	1,418,556.00	1,224,804.00	1,225,804.00	1,229,804.00	1,200,924.00	6,299,892.00	
	<b>University of Technology Sydney</b>							
IL240100042 Wang, Prof Guoxiu	<b>Ultrahigh Performance Batteries to Empower the Renewable Energy Transition</b> This project aims to design, manufacture, commercialise, and deploy ultrahigh performance batteries for domestic and grid-scale energy storage. In collaboration with industry partners, the project expects to develop new high-capacity battery materials, non-flammable electrolytes, and high-energy batteries with an exceptionally high level of operational safety and extended lifespan. The expected outcomes of this project encompass delivering significant leading-edge battery technologies to the renewable energy industry. The benefits include integrating intermittent renewable energy sources, stable electricity networks, and increased energy independence, thus ensuring a secure energy supply and empowering clean energy transition in Australia.	745,200.00	790,152.00	723,848.00	725,541.00	677,898.00	3,662,639.00	AUSTRALIA NATIONAL POWER STORAGE HOLDING PTY LTD, KINALTEK PTY. LTD., HEC GROUP PTY LTD, VAN DAIRY LIMITED, MISTRAL ENERGY PTY LTD
	<b>National Interest Test Statement</b> This Industry Laureate project seeks to overcome one of Australia's most serious challenges facing renewable energy storage. Current lithium-ion batteries, which are widely used in Australia and around the world to store renewable energy, have a major flaw: they can self-combust. This can cause significant harm to life and property. The project aims to solve this formidable challenge by introducing novel non-flammable and fireproof materials and gels inside the battery to make it safer. These new materials will also boost the performance of batteries, including energy density and lifespan. The outcomes of this project will support the Australian Government's commitment to achieve net-zero emissions by 2050 and its ambition to become a global clean energy superpower. In collaboration with our industry partners, the outputs will contribute to the emerging Australian battery manufacturing industry. Our strong partnerships will ensure results are disseminated beyond academia via various means, including commercialisation, industry fora and tradeshows. This project will provide an excellent intellectual and skill training program to train the future clean energy workforce. Further, it will create an Australian legacy in advanced battery technology to empower the renewable energy transition, attain a secure and reliable energy supply, open new manufacturing industries, generate job opportunities, and bring immense economic, social, and environmental benefits to Australia.							
	<b>University of Technology Sydney</b>	745,200.00	790,152.00	723,848.00	725,541.00	677,898.00	3,662,639.00	
	<b>New South Wales</b>	2,163,756.00	2,014,956.00	1,949,652.00	1,955,345.00	1,878,822.00	9,962,531.00	

# Minister's Approval for Industry Laureate Fellowships for Funding Commencing in 2024 Schedule

Approved Organisation, Leader of Approved Research Program  (Columns 1 and 2)	Approved Research Program  (Column 3)	Estimated and Approved Expenditure (\$)		Indicative Funding (\$)			Total (\$)	Industry Partner(s)
		2024-25 (Column 4)	2025-26* (Column 5)	2026-27* (Column 6)	2027-28* (Column 7)	2028-29* (Column 8)	(Column 9)	(Column 10)

## Queensland

### The University of Queensland

IL240100083	<b>Critical Material Design Enabling Long-life Next Generation Batteries</b>	757,609.00	697,518.00	700,768.00	706,518.00	719,248.00	3,581,661.00	PURE BATTERY TECHNOLOGIES PTY LTD, LITHIUM AUSTRALIA LIMITED
Wang, Prof Lianzhou	Australia is at the forefront of raw materials extraction globally and there is enormous potential to capitalise on the battery value chain. This fellowship, in collaboration with two industry partners aims to develop high-performing battery materials capable of powering electric vehicles with enhanced range and lifetime. This research will drive a step-change by designing new robust single-crystal microstructures to tackle the cycling stability challenges hindering the state-of-the-art lithium metal oxide cathode materials. The program will support local industry partners to move up the battery value chain and position Australia as the global leading battery market supplier while also reducing environmental impact from battery waste.							
	<b>National Interest Test Statement</b>							
	The exponential increase in the demand for extended range electric vehicles (EVs) and long duration grid energy storage continuously push the energy limits of batteries. The quest for higher energy, longer life and improved safety of the batteries is far from over. This fellowship will pioneer a new approach to the processing of high-quality Lithium-ion battery material. This will expand access to reliable, safe, and high-performing batteries that have significantly increased lifespans but reduced environmental impact for EVs and grid electricity storage in Australian households. The program will provide excellent opportunities in not only supporting application-oriented research and development of innovative battery materials but also facilitating large scale deployment of ground-breaking green battery technologies to accelerate the decarbonisation process. This work will place Australia at the forefront of implementing low-cost and long lifetime batteries for high-end EV market, accelerating the attainment of Australia's net zero emissions target.							
	<b>The University of Queensland</b>	757,609.00	697,518.00	700,768.00	706,518.00	719,248.00	3,581,661.00	
	<b>Queensland</b>	757,609.00	697,518.00	700,768.00	706,518.00	719,248.00	3,581,661.00	

# Minister's Approval for Industry Laureate Fellowships for Funding Commencing in 2024 Schedule

Approved Organisation, Leader of Approved Research Program  (Columns 1 and 2)	Approved Research Program  (Column 3)	Estimated and Approved Expenditure (\$)		Indicative Funding (\$)			Total (\$)	Industry Partner(s)
		2024-25 (Column 4)	2025-26* (Column 5)	2026-27* (Column 6)	2027-28* (Column 7)	2028-29* (Column 8)	(Column 9)	(Column 10)
<b>South Australia</b>								
<b>Flinders University</b>								
IL240100059  Halsey, Prof Mark	<b>Breaking the Prison-Reoffending Cycle: A Desistance From Crime Approach</b>  Half of Australia's 41,000 prisoners return to the \$6B prison sector within two years of release. Building on recent impactful work with Corrective Services NSW, this project aims to generate a paradigm shift in rehabilitative practice within Australia's largest jurisdiction, through systematic integration of how and why people stop offending. Expected outcomes include a nationally significant evidence base on how prisons impact reoffending, bespoke assisted desistance action plans for 24 NSW prisons (impacting 8000 prisoners), and reduced rates of assaults linked to more timely progression through to custody. Key benefits include safer communities, reduced spending, and a new era of evidence-informed institutional reflective practice.	638,574.00	706,700.00	717,804.00	752,731.00	686,486.00	3,502,295.00	DEPARTMENT OF COMMUNITIES AND JUSTICE CORRECTIVE SERVICES NSW
<b>National Interest Test Statement</b>		Australia's prison sector costs \$6B per year with half of all people released returning to prison within two years of release. To date, our correctional agencies have relied almost solely on models of criminal behaviour that only tell us why people reoffend. What is missing is knowledge about how and why people stop offending, and in particular, the role imprisonment itself plays in that process. This Fellowship builds on pilot work in Australia's largest jurisdiction to help fundamentally transform the way prisoners are rehabilitated. It will do this by examining how a strength-based approach influences levels of prisoner and staff safety, prisoners' personal identity change, and prisoners' social connections within and beyond custody. Communication, translation and adoption of the research will occur directly with the research partner, Corrective Services NSW, to create evidence-based site-specific action plans that best support prisoners to turn away from crime after their prison term. The project will benefit Australia by building safer communities, reducing policing and prison costs, and improving the lives of Australians who have spent time in prison.						
		<b>Flinders University</b>	638,574.00	706,700.00	717,804.00	752,731.00	686,486.00	3,502,295.00
		<b>South Australia</b>	638,574.00	706,700.00	717,804.00	752,731.00	686,486.00	3,502,295.00

# Minister's Approval for Industry Laureate Fellowships for Funding Commencing in 2024 Schedule

Approved Organisation, Leader of Approved Research Program  (Columns 1 and 2)	Approved Research Program  (Column 3)	Estimated and Approved Expenditure (\$)		Indicative Funding (\$)			Total (\$)	Industry Partner(s)
		2024-25 (Column 4)	2025-26* (Column 5)	2026-27* (Column 6)	2027-28* (Column 7)	2028-29* (Column 8)	(Column 9)	(Column 10)
<b>Victoria</b>								
<b>Monash University</b>								
IL240100034  David, Prof Bruno	<b>Katungal: Managing archaeological sites threatened by sea level rise</b>  This project aims to investigate Aboriginal coastal archaeological sites and landforms endangered by sea level rise. It expects to generate new knowledge on the distribution, characteristics and antiquity of archaeological sites in vulnerable landforms of the Gippsland coast. Expected outcomes are the development of a new, nationally and internationally applicable method to predict and monitor the susceptibility of coastal archaeological sites to erosion, and the training of a generation of Aboriginal Sea Rangers in land-and-sea Country research, monitoring and management. This should provide significant benefits for the management of coastal archaeological sites and landscapes by Indigenous organisations and land management agencies.	671,051.00	757,869.00	761,981.00	749,969.00	685,360.00	3,626,230.00	GUNAIKURNAI LAND & WATERS ABORIGINAL CORPORATION RNTBC
<b>National Interest Test Statement</b>								
Significant Aboriginal and Torres Strait Islander coastal archaeological sites and landforms are being destroyed by accelerating rates of erosion caused by sea level rise, storm patterns and encroaching coastal developments. These threatened coastal archaeological sites and landforms need to be investigated, and mitigation strategies need to be developed before it is too late. Working in close partnership with Aboriginal representative organisations with significant areas of coast and sea Country, this Industry Laureate project intends to transform how coastal archaeological sites are researched, and to train a new generation of Aboriginal Sea Rangers to map, monitor and manage coastal landscapes threatened by erosion. The benefit of this research is to document and safeguard vulnerable coastal sites and landforms that connect Aboriginal peoples to Country, and to share in culturally appropriate ways knowledge about the significance of these coastal places with the broader Australian and international public. These benefits will be achieved through an extensive program of partnership research and training with First Nations organisations and State and national agencies, as well as the production and release of a documentary film.								
IL240100045  Boyd, Prof Benjamin J	<b>Precision Nutrition through controlling the gut-particle biointerface</b>  The project aims to enable more rational design of efficient food systems through understanding the complex interactions that occur between the surface of food particles and our gut. The project expects to generate new knowledge on how biomolecules in the gut interact with particles, using novel techniques to study the gastrointestinal processing of food. Expected outcomes of the project include developing new frameworks for the design of more efficient foods tailored to specific populations enabling a new concept of 'precision nutrition' and connecting industry with advanced techniques. This should provide significant benefits in efficiency of delivery of nutrition, food utilisation, and new product concepts for the industry partner.	930,000.00	710,000.00	720,000.00	720,000.00	0.00	3,080,000.00	FONTERRA AUSTRALIA PTY LTD, AUSTRALIAN SYNCHROTRON (ANSTO)
<b>National Interest Test Statement</b>								
The project will establish a new framework for selection of components for food structuring that will enable enhanced digestion and delivery of nutrients from food. Australia can help solve the global issue of better food and nutrition by creating foods that efficiently deliver nutrients through improved gut interactions. The food industry contributed 11% or \$187 billion towards Australia's GDP in 2018 and hence innovations can have a large impact on Australia's economy, through both food innovation and the health and social outcomes that result from improved nutrition. For the Australian population in particular, a key element of the food equation is the design of foods that meet the needs of specific populations such as the elderly, to enable them to thrive and contribute to Australia's social and economic fabric until much later in life. We will link the capabilities of Australia's large research facilities with this direct industry problem, and will establish this framework through innovative experiments that determine the response of food structure to the environment in our gut and potentially revolutionise food design. The fellowship will also create a network of industry scientists and academic researchers working in this field that will enable wide dissemination of the newly established methods and techniques for broad adoption. The network will also promote non-confidential research findings through channels such as social media, websites, reports and podcasts.								
<b>Monash University</b>		1,601,051.00	1,467,869.00	1,481,981.00	1,469,969.00	685,360.00	6,706,230.00	

# Minister's Approval for Industry Laureate Fellowships for Funding Commencing in 2024 Schedule

Approved Organisation, Leader of Approved Research Program  (Columns 1 and 2)	Approved Research Program  (Column 3)	Estimated and Approved Expenditure (\$)		Indicative Funding (\$)			Total (\$)	Industry Partner(s)
		2024-25 (Column 4)	2025-26* (Column 5)	2026-27* (Column 6)	2027-28* (Column 7)	2028-29* (Column 8)	(Column 9)	(Column 10)
<b>The University of Melbourne</b>								
IL240100061  Sloggett, Prof Robyn J	<b>Safe Keeping: Effecting solutions for risk to remote Indigenous heritage</b>  Indigenous community-held cultural heritage is a national resource at risk. This project aims to transform its in-community conservation to: deliver key diagnostic evidence as to how and why this resource is under threat; build new capacity in expert conservation practice; and secure a framework for new policy, and industry and philanthropic investment to realise future gains. Expected outcomes include tools to manage resource risk; education initiatives to support collection care; a qualified Indigenous conservation national network and new economic employment model; and improved industry and sectoral responses. These are geared to sustainable and intergenerational economic, education and cultural benefit for all Australians.	756,667.00	755,864.00	754,149.00	761,148.00	658,644.00	3,686,472.00	ARNHEM NORTHERN AND KIMBERLEY ARTISTS ABORIGINAL CORPORATION - ANKA, IAS FINE ART LOGISTICS PTY. LIMITED
<b>National Interest Test Statement</b>								
With Australia witnessing the relentless loss of our Indigenous cultural heritage, the aim of this Industry Fellowship is to produce research outcomes that will reduce the risk of further losses of remotely-located Indigenous collections. In doing so, it will unlock and secure the asset capacity of collections for Indigenous knowledge, income production, job creation, world-leading research programs, and deliver a community education resource for future generations. Our co-designed and co-delivered research—situated within the philosophy of two-way/both-way knowledge reciprocity practised by Gija, Yolngu and other Indigenous partners—will deliver the first comprehensive analysis of risks to cultural collections in remote communities; identify ways to properly manage these risks; assess best-practice IP management; identify and evaluate potential income; and develop assessment tools to provide evidence of the economic and social value of these collections, thereby securing their future for community and national benefit. The Fellowship will deliver a step-change in the capacity for Indigenous communities to care for their cultural heritage, contribute to self-determination and reduce risk to national assets, thereby creating significant social, cultural and financial benefits. It will build knowledge and capability in a new generation of university researchers and Indigenous art workers, and an online media program will bring our cultural heritage to an international audience								
<b>The University of Melbourne</b>		756,667.00	755,864.00	754,149.00	761,148.00	658,644.00	3,686,472.00	
<b>Victoria</b>		2,357,718.00	2,223,733.00	2,236,130.00	2,231,117.00	1,344,004.00	10,392,702.00	
		<b>5,917,657.00</b>	<b>5,642,907.00</b>	<b>5,604,354.00</b>	<b>5,645,711.00</b>	<b>4,628,560.00</b>	<b>27,439,189.00</b>	