

Overview

This submission is in response to the **University Research Commercialisation Scheme** discussion paper released by Minister Tudge on 26th February 2021 to better translate and commercialise university research outputs. Our original submission focussed on possible programs to incentivise and increase partnerships between businesses and Universities:

We note that you are now seeking submissions for comment on the **Higher Education Research Commercialisation IP Framework** consultation paper. In this submission we have chosen to respond to one of the consultation paper questions. We use the existing question numbering system.

We do note that nearly all Australian Universities have existing IP Policies. The World IP organisation confirms that 45 Australian Universities already have IP policies¹. Our feedback is to help streamline the process of taking ideas, discoveries, and inventions from the lab to market.

11. What would make the HERC IP Framework attractive to collaborating and investment partners?

Investors want certainty around the terms of a licence for University IP. In general Universities overvalue their IP and believe it is more mature than it is. Universities and Researchers are fearful of assigning their IP to a commercial entity that may ultimately fail. As such we recommend:

- Universities assign IP to a commercial entity on a five year 'use it or lose it' basis. This provides a timeline for both parties to work towards a successful commercialisation outcome. At the end of the five years, if the commercialisation process has failed the University has the right to take back the IP on a no-fee basis. The company bears any IP protection costs for this period.
- If the commercialisation of the IP is successful, it provides time to negotiate between the company and the University on appropriate royalty or revenue share arrangement. This five-year period provides additional insight and visibility to the actual value and potential of the IP.

Before spending money on patents, universities should validate the business case of the IP. Most patents universities file have little value but have a high lifetime cost. Industry partners are looking to engage with a research institution when the Technology Readiness Level is in the 4-6 range. Most researchers overestimate the Technology Readiness Level (TRL) of their discoveries and have no funding sources to help them mature the technology to the 4+ range.

As such, we have chosen to focus our submission on the need for a **National Research Translation Fund**. This is the program that leads to the need for a **HE Research Commercialisation IP Framework**. There is no point protecting IP if you have not demonstrated that there is any commercial value in it. In fact, in our experience, University IP portfolios are filled with underperforming, costly, patent families that have had no formal market validation.

What is missing in the Australian landscape is a program to help researchers assess if their IP, idea, discovery, or invention has commercial potential. This then leads to market validated discoveries and inventions which are then worthy of protection.

There is an exemplar we can refer to which has been doing this in Australia for the last decade.

A 10-year review has just been completed of the **Discovery Translation Fund (DTF)**. This fund provides grants for researchers from the ANU, University of Canberra and Charles Sturt University to engage with industry and answer one simple question: Does my research / discovery / invention have commercial potential?

Key Findings:

- >\$50M of funding secured by grant recipients from an investment of \$5M from the University sponsors – A 10:1 Leverage
- Approximately 1 in 10 of the grants led to the creation of spin outs (Liquid Instruments, Beta Therapeutics, Quantum Brilliance, Nomad Atomics, Nexus eWater, NuCoria, MoodGym, InterfereX, EpiAxis Therapeutics)
- These spinouts signed numerous, multi-year, research agreements with their alma mater
 - **Beta Therapeutics** signed >\$2.64M in research contracts back to ANU and sponsored an ARC Linkage grant with Research School of Chemistry (total grant funding back to ANU from the linkage grant was \$565k)
 - **Liquid Instruments** signed >\$3.2M in research contracts back to ANU; partnered with ANU for first CRC-P success – a \$2.9M total grant with \$300k going back to ANU
 - **EpiAxis Therapeutics** signed >\$2.7M in research contracts back to the University of Canberra
- Approximately 9 out of 10 of the grant recipients benefited from the rigour of being part of a funding program like this and went on to publish their findings for the public good.

Since founding in 2011 the DTF has funded over 100 projects. It bridges the funding gap between discovery research and commercial development. It de-risks projects and positions the IP for more attractive licensing or commercialisation opportunities. It helps attract further funding whether this is through other Federal Grant programs (ARC, NHMRC, ARENA, Fellowships etc.) or through the creation of a university spin-out that attracts seed investment.

We have identified >\$50M of funding secured by grant recipients from an investment of \$5M from the University sponsors. A 10:1 leverage in funding. In addition, approximately 1 in 10 of the grants led to the creation of spin outs. These spin outs come from the physical science and social sciences. The founders of these spin outs usually stay on campus for many years while they prove the commercial viability of their idea. They sign multiple commercial research contracts with their alma mater and the University usually holds equity in the Spin out. This type of equity holding can become very valuable as has recently been demonstrated by the 13% holding of Deakin University in Li-S Energy (ASX: LIS)ⁱⁱ.

The grants have catalysed a range of follow-on activities, programs, and funding. These include Industry Collaborations, ARC Grants, NHMRC Grants, CSIRO Fellowships, ARENA Grants, Creation of Spin outs and securement of Accelerating Commercialisation Grants.

The recipients of the DTF grants reflected that the grant was a key catalyst for their future commercialisation journey:

- *“The DTF award was a catalyst for starting **Liquid Instruments** (LI). It provided incredibly valuable, highly leveraged funding to allow the LI Team to retire the major technology risks associated with the company’s technology and strategy. This project led directly to the formation of Liquid Instruments at the conclusion of the project, and the securing of LI’s first venture capital investment later that year. Since then, the company has gone on to raise >\$25M and employs 30 staff in Canberra and a total of more than 50 worldwide.”*
 - **Professor Daniel Shaddock – CEO - Liquid Instruments**
- *“The DTF program allowed us to translate our research interventions into a range of commercial products (**Moodgym** and e-couch) and transition from free to paid services. We*

also used the grant to engage with potential customers. The programs have been used by more than 1.3 million individuals globally to help manage and treat their mental health problems.”

- **Dr. Kylie Bennett**
- *“The DTF program funded the first animal studies that underpinned our thesis that combination therapy with an LSD1 inhibitor and chemotherapy reduces tumour volumes in mice. From this we were able to establish **EpiAxis Therapeutics**, raise over \$6M in capital over 5 years, signed multiple research agreements with the University of Canberra and proceeded with the development of our first in class LSD1 inhibitors”*
 - **Dr. Jeremy S Chrisp** – CEO - EpiAxis Therapeutics
- *“The DTF program was the catalyst of **InterfereX Communications**, enabling us to get started and get serious about the product, customers, and market. The funding was critical in kickstarting the team and provided the necessary focus to deliver on our prototype and customer interviews. The outcome of the project enabled us to go on and raise \$1.2m of Investment and triggered the establishment of a Board which brought credibility and momentum. InterfereX employed up to 9 people (3 with PhDs) and secured (over two different applications) \$1m from Accelerating Commercialisation.”*
 - **Dr. Mark C. Reed** - Former CEO/Founder InterfereX Communications Pty. Ltd. IP spunout of NICTA – led to creation of InterfereX (Sold to Dolby Labs [NYSE:DLB] in 2018)

If this Country is serious about commercialising more of its research, we need a better way of talent identification. The NRTF allows us to identify the talent with an interest in commercialisation and test their idea with industry before making a costly investment in their IP and taking the leap of faith in creating a spin out.

As such, we reiterate our call for the Creation of a **National Research Translation Fund (NRTF)** - \$100M Fund over 5 years

- \$100M Fund over five years
- Takes ideas from the lab to market
- Raises researcher led IP from TRL 1-3 to TRL 4-6
- Managed by industry experts and assessed by commercially qualified independent investment committee
- Each submission will receive high quality, relevant, industry feedback
- Two staged application process: Expression of Interest (Eoi) and then full application
- Produces investible projects / commercialisable IP / spin-outs
- \$90M to fund 1000-1500 projects through grants ranging from \$50k - \$200k (200-300 per annum)
- \$10M Management and Administration Costs (\$2M per annum)

Projected Outcomes from the National Research Translation Fund

- Will produce 1000-1500 projects that could lead to spin-out companies
- Will deliver \$1BN in leveraged funding (using the DTF 10:1 demonstrated leverage ratio)
- Will produce 100-150 new Australian spin-out companies (using the DTF 1:10 demonstrated spin out ratio)

About Campus Plus – www.campusplus.com.au

Campus Plus offers on-demand Industry engagement; strategic partnership creation; researcher commercialisation training and mentoring; technology transfer; entrepreneurship training; unique IP identification, protection, development, and commercialisation. We have 13 Australian Universities as clients.

Our team of experts spans many decades of university experience and spans a broad range of domains. We do this through a network of industry experts who are brought together on a project-by-project basis. We largely work remotely but engage and interact on an intimate basis.

Publication Consent

Campus Plus provides formal consent to our submission being made publicly available.

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ⁱ World Intellectual Policy Organisation - https://www.wipo.int/about-ip/en/universities_research/ip_policies/search.jsp?territory_code=AU

ⁱⁱ Li-S Energy - <https://www.lis.energy/site/content/>