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Announcing New Industry Fellowships, a Clinical Entrepreneur Program and Targeted Training to Boost Medical Product Commercialisation

MTPConnect is pleased to announce that 18 high-skilled Australian researchers, clinicians and professionals from the medical technology, biotechnology and pharmaceutical sector have secured sought-after industry placements under the REDI (Researcher Exchange and Development within Industry) Fellowship program.

The new fellows selected from the November 2021 round are from New South Wales, Queensland, South Australia, Victoria and Western Australia and will be working for up to 20-months with small, medium and international companies based in Australia and Europe.

The REDI Fellowship program provides financial support to Australian and/or multinational medtech and pharma companies to bring the best Australian talent in-house to work on priority research projects.

MTPConnect CEO Stuart Dignam says connecting researchers, clinicians and sector professionals with industry is critical for the growth of Australia's medical products sector.

"Our congratulations to these 18 talented fellows who are doing vital work in our sector for patients – and to the companies who are sponsoring them," Mr Dignam said.

"There are now 32 fellows being supported through our REDI program, all gaining real-world industry experiences in research intensive companies.

"We are delighted that so many companies, from CSL and Cochlear to Leica Biosystems and SpeeDx, have seized the opportunities provided by our fellowships program which is driving greater collaboration between industry and research.

"Not only do fellows benefit from working within industry settings, but the program also ensures they return for a time to their home institution so they can share their industry experiences within the research sector and help drive commercialisation-focused culture change.

Targeted Training Programs

Continuing the REDI initiative's commitment to addressing workforce skills gaps, five consortia have been awarded contracts through Round Three of the Contestable program to deliver training and education programs – ARCS Australia Consortium, PRAXIS Australia Consortium, IntelliHQ Consortium, Centre for Biopharmaceutical Excellence Consortium and Wrays Consortium.

A range of new training programs aim to address priority workforce skills gaps identified in MTPConnect's Skills Gap reports, including the clinical trials sector, big data analytics and AI technologies, Good Manufacturing Practices and biomedical commercialisation competencies.

"We are excited to welcome five high profile consortia to the REDI initiative which are





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collaborating to deliver world class training and skills programs to support the development of our talented MTP sector workforce around Australia. The consortia are collaborating with industry in the deployment of these programs which maximises the impact of this investment," Mr Dignam said.

The Australian Clinical Entrepreneur Program (CEP) - Pilot

In addition, MTPConnect is also pleased to announce its partner for the REDI supported Australian Clinical Entrepreneur Program (CEP) – the University of Melbourne and University of Western Australia Partnership, which also includes more than 20 other associates, of which five are major hospitals.

"We welcome the University of Melbourne and University of Western Australia Partnership to deliver the CEP pilot across three states: Victoria, Western Australia and New South Wales, which will provide an avenue to leverage and optimise untapped sector expertise and help foster and support clinical entrepreneurship," Mr Dignam said.

"Our *Driving skills development and workforce training for the future MTP workforce* <u>report</u> found that successfully harnessing the potential of clinician entrepreneurs could make a real difference to the growth of Australia's medical sector.

"Through the REDI initiative and commencing in September this year, the 12-month CEP pilot, similar to an incubator, will deliver workshops and networking opportunities to healthcare professionals to develop their innovative ideas into products and enterprises/businesses that benefit clinical care of patients.

"It is excellent to see the REDI initiative going from strength to strength, ramping up Australia's MTP sector with new Fellowships and programs to improve workforce skills and boost medical research commercialisation and entrepreneurism in Australia," Mr Dignam said.

Congratulations to the following REDI Fellows:

Dr Hilary Byrne is a Program Manager and Research Fellow from The University of Sydney who will undertake a 12-month project with 4DMedical, the technology innovator delivering breakthrough fourdimensional lung imaging capability, transforming diagnosis and surveillance. Dr Byrne will focus on resolving clear clinical needs spanning conditions such as COPD, lung cancer, cystic fibrosis and long-COVID, and by expediting regulatory approvals and commissioning of prototype scanning platforms enabling better treatments for patients.

Dr Cathy Sucher is a Senior Implant Audiologist & CI Research Lead from Ear Science Institute Australia. Dr Sucher will undertake a 9-month project with Cochlear Ltd, a global leader in implantable hearing solutions, to develop skills in the best practice of product development and commercialisation processes. Dr Sucher will develop curated counselling materials for a digital decision-aid tool for mainstream audiology clinics to improve the quality of cochlear implant discussion and follow ups.

Dr Demi Gao is a McKenzie Research Fellow from the Department of Biomedical Engineering at the University of Melbourne and will undertake a 12-month project with Cochlear Limited, the global leader in implantable hearing solutions. Dr Gao will join Cochlear's R&D team to develop skills in translating research to early-stage product development and will develop an AI approach





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for improving the performance of implantable microphones.

Dr Darcelle Thompson is a Manager Business Development and Commercialisation from La Trobe University who will undertake a 12-month project with CSL Limited, global biotech leader in biotherapies and influenza vaccines, to build commercial skills and knowledge. In CSL's Research Innovation team, Dr Thompson will identify, evaluate and support investment decision making of early stage, external research opportunities and be part of CSL's Global Licensing team supporting the licencing of new product opportunities and technologies.

Associate Professor Kate Gartlan is a Team Head at QIMR Berghofer who will undertake an 18-month project with CSL, a global biotech leader in biotherapies and influenza vaccines. A/Prof Gartlan will work with CSL to develop novel treatments to improve outcomes for blood cancer patients after stem cell transplantation. A/Prof Gartlan will learn the key aspects of strategy development and industry-based approaches to enhance translatability of academic research into solutions for patients, whilst identifying opportunities within highly competitive landscapes.

Dr Nicole Dmochowska is a Research Associate from the University of South Australia who will undertake a 12-month project with Ferronova, the Australian company developing novel early cancer detection technology, to develop skills in preclinical toxicity studies and Phase 1 "first-in-human" trials. Dr Dmochowska will complete streamlined preclinical validation of fibroblast activation protein-targeting nanoparticles for the delineation of brain tumours, in preparation for Phase 1 "first in human" clinical trials.

Associate Professor Jason Lee is a Head of Epigenetics and Disease Laboratory at QIMR Berghofer who will undertake a 12-month project with IP Group Australia, a leading investor in breakthrough technologies, to develop research commercialisation skills. A/Prof Lee will be embedded in a team of investment managers, assessing opportunities from across top research institutions in Australia, and collaborate in creating and supporting a portfolio of spin-out companies.

Associate Professor Gianni Renda is the Department Chair of Architectural and Industrial Design at Swinburne University of Technology who will undertake a 12-month project with IDE Group to develop project management, quality assurance, documentation and stakeholder management skills for the medical device industry. A/Prof Renda will operate within an ISO 13485 certified Quality Management System and develop (with Eudaemon Technologies) a User Centred Design & Medical Device Development pathway to help facilitate design-driven translational outcomes from fundamental research.

Professor Brian Abbey, a Physics Professor from La Trobe University, will undertake a 12month project with Leica Biosystems, a cancer diagnostics company and global leader in workflow solutions, focused on validating the commercialisation of a new nanotechnology platform for bioimaging of difficult-to-diagnose cancers. Professor Abbey will determine the regulatory pathway and perform essential market validation necessary to bring the tool to market for cancer diagnosis to enable better outcomes for cancer patients.

Professor Sudha Rao is a Group Leader, Gene Regulation and Translational Medicine Laboratory from QIMR Berghofer who will undertake a 20-month project with Max Kelsen, an artificial intelligence and machine learning consultancy firm providing end-to-end solutions for





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healthcare applications, to increase her machine learning, product development, commercialisation and IP skills. Professor Rao will develop a clinic-ready AI-driven blood test for severe COVID-19 to predict individual risk of developing severe disease in the community setting or when hospitalised.

Associate Professor Michelle Hill is a Principal Research Fellow / Group Leader from QIMR Berghofer who will undertake a 12-month project with Microba Life Sciences Limited, a precision microbiome science company driving the discovery and development of novel therapeutics, to gain skills in business operations, product development and commercialisation. A/Prof Hill will work on identifying gut microbial biomarkers for metastatic melanoma to inform the development of therapeutic candidates to be used in conjunction with Immune Checkpoint Inhibitor (ICI) therapies, and companion diagnostic biomarkers.

Dr Paola Favuzza is a Senior Research Officer at WEHI who will undertake a 12-month project with Medicines for Malaria Venture (MMV), a leading product development partnership working to reduce the burden of malaria worldwide. From MMV's office in Switzerland, Dr Favuzza will develop skills in R&D project management and the conduct of GLP and GCP compliant nonclinical and clinical studies. Dr Favuzza will progress antimalarial candidates through the R&D pipeline from lead optimisation through to early phase clinical trials.

Associate Professor Zoe McKeough is an Associate Professor in Physiotherapy and a senior researcher in the Respiratory and Cardiac Rehabilitation and Management (ResCaRM) Research Team from the University of Sydney. A/Prof McKeough will undertake a 12-month project with Perx Health, a digital care company building programs for daily condition management, to gain hands-on skills and experience in designing and building digital health technology for healthcare. A/Prof McKeough will build a commercially-ready mobile pulmonary rehabilitation program integrated with the Perx digital health platform.

Dr Mehra Haghi is a Senior Lecturer from University of Technology Sydney who will undertake a 12-month project with Pharmaxis Ltd, a Sydney-based clinical-stage biopharmaceutical company specialising in drug development for inflammatory and fibrotic diseases, to gain skills in preclinical development of compounds and commercial endpoints decisions in the pharmaceutical industry. Dr Haghi will work on a drug discovery project for a small molecule inhibitor for a topical anti-inflammatory drug for skin inflammation.

Associate Professor Suong Le is a Consultant Gastroenterologist and Hepatologist from Monash Health who will undertake a 7-month project with Planet Innovation, a healthtech innovation and commercialization company, to train in agile development methodology and develop skills to commercialise a digital health product. A/Prof Le will produce a world first digital therapeutic, to increase engagement testing and treatment for Australians living with Hepatitis C Virus who are not currently engaged in conventional models of healthcare.

Dr Peyman Obeidy is a Clinical Image Analyst from The University of Sydney who will undertake a 12-month project with Siemens Healthineers, a leading medtech company, to gain skills in specification, validation, and regulatory requirements and market positioning digital products. Together with Siemens and iCoreLab, a company that specialises in medical data handling, Dr Obeidy will use A.I. powered algorithms to identify Biomarkers for early coronary artery disease risk identification and stratification.





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Dr Emma Sweeney is a Postdoctoral Researcher from The University of Queensland who will undertake a 12-month project with SpeeDx Pty Ltd, a developer of innovative molecular diagnostic solutions, to develop skills designing molecular compounds and industry-level diagnostic R&D. Dr Sweeney will develop and clinically validate a commercial resistance test to improve the treatment of M. genitalium infection – antimicrobial resistant superbug.

Dr Elke Hacker is a Research Fellow from Griffith University who will undertake a 12-month project with Vaxxas, an Australian biotechnology company commercialising a novel needle-free vaccination technology, the High-Density Microarray Patch (HD-MAP). Dr Hacker will gain skills in quality management and medical device manufacturing to support future vaccination delivery, including for pandemic response. Dr Hacker will conduct clinical trials testing a suite of training resources educating healthcare workers on how to use the HD-MAP device.

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About MTPConnect:

Established in 2015 as an independent, not-for-profit organisation, <u>MTPConnect</u> is Australia's Medical Technologies and Pharmaceuticals Industry Growth Centre, championing the growth of Australia's vibrant MTP ecosystem.

About the REDI Program

MTPConnect deploys the \$32 million REDI initiative, supported by the Medical Research Future Fund. The four-year program is delivering system-wide improvements to skills development and training programs for the medical technology, biotechnology and pharmaceutical sector workforce.

About REDI Fellowship Program

The REDI Fellowship Program provides up to \$250,000 per fellow, per annum. It offers the flexibility of full and part-time fellowships over a six-month to two-year period and can support domestic and international fellowships.

About The Australian Clinical Entrepreneur Program - Pilot

The **Australian** Clinical Entrepreneur Program (CEP) is based on the successful UK NHS Clinical Entrepreneur Program. The Australian CEP pilot will help equip healthcare professionals with the skills to translate and commercialise their ideas and innovation into impactful solutions; drive the development of solutions that will be used by patients and healthcare providers both in Australia and around the world to address key challenges; effect cultural change within the healthcare system by encouraging entrepreneurialism; and retain talented clinical staff who might otherwise leave to pursue entrepreneurial ambitions.

The Australian CEP pilot will be delivered by the University of Melbourne and the University of Western Australia partnership, across three states: Victoria, Western Australia and New South Wales. The partnership involves more than 20 associates, of which five are major hospitals and a broad selection of industry.





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About the REDI Round Three Training Providers 1. ARCS Australia Consortium: ARCS GROW Program

ARCS Grow Program addresses the well documented shortage of Clinical Research Associates (CRAs) in the clinical research sector and involves a CRA "traineeship" program a CRA Supervisor Train-the-trainer program and a competency framework for CRAs.

ARCS Australia is a national, membership-based organisation focused on the development and growth of the MTP sector. ARCS provides education, career pathways, professional development and advocacy. ARCS is partnering with a consortium of highly experienced organisations, who have extensive networks and experience in delivering training. Consortium Partners include PRAXIS Australia, BeiGene Australia, Novotech, Southern Star Research and Mobius Medical.

2. PRAXIS Australia Consortium: The Clinical Trials Coordinator (CTC) Internship Program

This highly selective program offers an immersive, flexible, competency-based training model that will support 15 interns over a 10-month timeframe, commencing in January 2023 and will include host organisations from across metropolitan and regional Queensland, New South Wales and South Australia.

PRAXIS Australia is a leading education and training provider that help builds the capability and capacity of the clinical trials, research and ethics sectors. The CTC internship program will be undertaken by a consortium of 7 strategically aligned partners who work across the Australian clinical trials ecosystem, and includes representation from research, academia, peak industry bodies, health care, and education and training sectors. PRAXIS Australia and consortium partners include: ARCS Australia (ARCS), The South Australian Health and Medical Research Institute (SAHMRI), The University Queensland Centre for Clinical Research (UQCCR), The George Institute for Global Health(TGI), Maridulu Budyari Gumal SPHERE and Sydney Health Partners (SHP).

3. IntelliHQ Consortium: National Big Data Analytics and AI training program for Australian Healthcare Leaders, Clinicians, Nurses, Researchers and Scientists:

This training program will expand the big data analysis and AI awareness and skills of healthcare leaders, clinicians, nurses and researchers through engaging and interactive training programs that culminate in and a medical datathon.

IntelliHQ is a not for profit dedicated to supporting the adoption and translation of next generation AI technologies into Australia's healthcare system. IntelliHQ and consortium partners (Massachusetts Institute of Technology, The Gradient Institute, Cohort Innovation Spaces, ANDHealth, Australian and New Zealand Intensive Care Society, The Queensland AI Hub, Gold Coast Hospital and Health Services, Datarwe, Data Synergies, Servian, St Vincents Hospital Melbourne, The Alfred, UniSA, Bond University & Griffith University) are passionate about upskilling the healthcare and research workforce in big data analytics and AI and supporting the development and implementation of innovative AI technologies to the patient bedside.

4. Centre for Biopharmaceutical Excellence (CBE) Consortium: GMP Uplift Programs

CBE GMP Uplift Programs will provide participants a real-world perspective on Good Manufacturing Practice (GMP), designed to enable the interpretation and application of GMP in practice. The Programs range is for new entrants up to senior experienced professionals and feature leading subject matter experts who will share real-world experiences and will be delivered nationally.





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CBE brings strong technical credentials, from consulting and GMP related enterprise training and will lead the Consortium; accompanied by ARCS Australia, Merck Life Sciences Australia and draw on CBE Pure Solutions, Translational Research Institute -TRI) and UTS Biologics Innovation Facility -BIF facilities for hands-on training.

5. Wrays Consortium: The Commercialisation Framework Supporting Biomedical Outcomes

Wrays will create a comprehensive skills-based competency framework across the different stages of the MTP value chain, built on deep experience and expertise across all aspects of the process, to provide a resource for early-stage companies and SMEs to develop, access and/or manage the range of skill sets, whilst recognising the differences in development pathways required for:

• Therapeutics (which can encompass small molecules, biologics, other); and

• Medical technologies (including devices, software and diagnostics).

Wrays is one of the largest independent intellectual property specialist firms in Australia – bringing together the right combination of experts to protect, grow and defend IP assets locally and globally. Wrays and consortium partners (Yuuwa Capital, QRC Solutions and Biodesign/University of Western Australia) each bring their separate knowledge and experience, which together provides unrivalled depth in training and the commercialisation of therapeutic products.





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