

We'll stop at nothing to help prevent and treat cancer

We discover, develop and evaluate therapies that prevent and treat cancer.

Our research teams have expertise in:

- **innovative research and breakthrough discoveries** in the fundamental causes of cancer. This enables discoveries to be translated into new ways of understanding, diagnosing and treating cancer. Our cancer expertise at UniSA benefits from a partnership between SA Pathology and UniSA which created the Centre for Cancer Biology in 2013
- **cancer detection and therapeutics**, including the development of specific diagnostics and prognostics, to improve patient outcomes
- **precision health methods** that utilise large-scale data analytics, such as genetic risk prediction modelling, and machine learning that identify predictors for cancer risk and cancer mortality
- **next generation nanomedicines** to enable safe and more efficacious cancer therapies, including the improvement of T-cell immunotherapy and establishing prodrug-nanomedicine combinations
- **drug dosage optimisation** to improve effectiveness of drug therapies for cancer, improve treatment options and reduce medicine harm
- **health care systems** for the prevention and reduction of the burden of cancer
- **radiation in healthcare**, covering medical imaging, diagnostics, nuclear medicine, theranostics and clinical trials in partnership with radiation oncology and nuclear medicine clinical providers.

Our experts work across diverse research centres including:

- the **Centre for Pharmaceutical Innovation**, which delivers better medicines for enhanced patient outcomes. The centre transforms medical possibilities into clinical realities alongside industry collaborators, while also delivering industry-informed education to research students
- the **Australian Centre for Precision Health**, which brings together a multidisciplinary group of leading experts in genomics, population health and evidence translation to create the next generation of solutions for global health problems
- the **Rosemary Bryant AO Research Centre**, which is dedicated to empowering nurses and midwives to improve consumer-centred care. The centre is focused on survivorship, patient reported outcomes, and direct health translation that has a real world impact.

UniSA in action – a better chemotherapy drug for enhanced patient outcomes

FivepHusion and UniSA's partnership:

- provided bioanalytical, pharmacokinetic and clinical trials management expertise to progress the development of a reformulated anti-cancer drug
- gained US FDA confirmation of an accelerated regulatory path to registration
- designed the next clinical trial.

Biotechnology company FivepHusion has partnered with UniSA to progress the development of a new all-in-one reformulation of a common chemotherapy drug. FivepHusion's new drug, 'Deflexifol™', addresses significant limitations in current treatment for solid tumour cancer patients and aims to improve patient outcomes.

Current treatment with 5-fluorouracil (5FU) and its biomodulator leucovorin remains a fundamental component of many efficacious chemotherapy regimens for patients with solid tumours. However, these two drugs cannot be administered together at one time. As such, it is estimated that the combined benefit of 5FU and leucovorin only occurs for approximately <10% of the entire treatment period. This means patient outcomes are far from optimal – Deflexifol™ addresses this unmet need.

"Our collaboration with UniSA, led by Associate Professor Stephanie Reuter Lange, has contributed valuable advice for our clinical trial strategy to progress our new drug Deflexifol™ toward regulatory approval," says CEO and Managing Director of FivepHusion, Dr Christian Toouli.

"By partnering with UniSA, our team received deep expertise and capabilities in bioanalytics, pharmacokinetic modelling and clinical trials management. This allowed us to expedite the development of Deflexifol™ toward registration and commercialisation. Thanks to UniSA's guidance we have optimised our clinical development plans to meet the FDA's requirements for an accelerated regulatory path."



Christian Toouli, FivepHusion CEO



Our partners include:



UniSA's Enterprise Hub

World-leading technology and research expertise at your side

We are committed to helping organisations improve outcomes for people with cancer.

The UniSA Enterprise Hub connects you to experts, talented graduates, state-of-the art facilities, leading technology, world-class research groups and 2,500+ industry partners.

To learn more, scan the QR code or visit unisa.edu.au/enterprisehub



Through the Enterprise Hub you can connect with:



Industry-focused researchers

Collaborate on research projects that solve your business challenges and tap into industry opportunities. Embed or co-locate your colleagues with our research teams and bring an industry focus to industry problem solving.



Intellectual property and technology

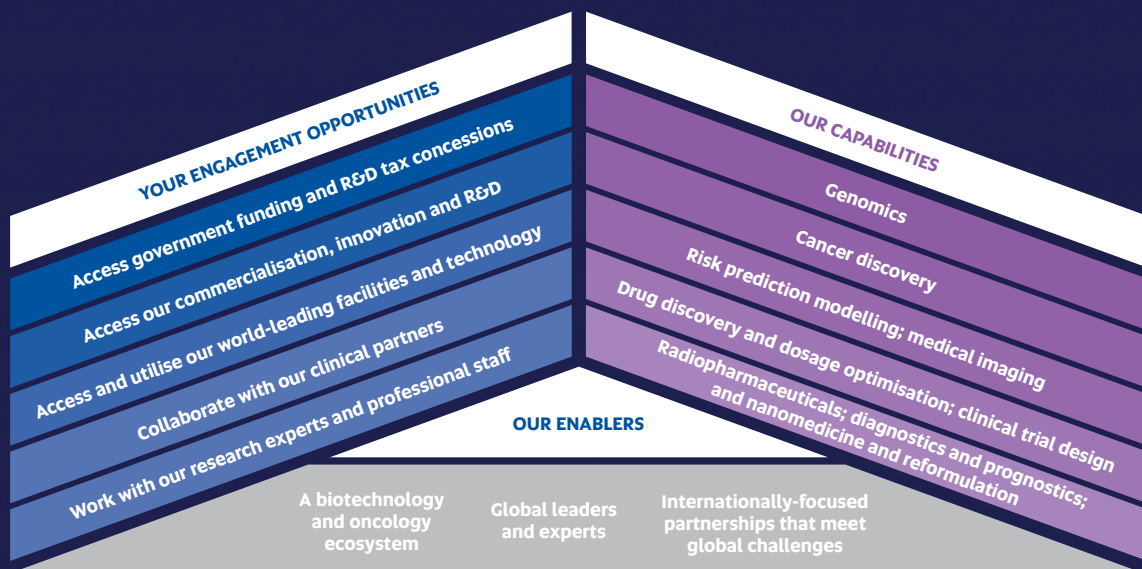
Add value to your business by licencing UniSA technology, while also gaining an innovative edge and creating economic and social impact.



World-class facilities, tools and equipment

Test, prototype, experiment, learn, iterate and launch new products, processes and projects. We assist transition through all Technology Readiness Levels (TRLs), including the mid-TRLs, reducing the risk of commercialisation research.

We'll help you enhance the wellbeing of cancer patients and save lives.



"Our multidisciplinary research teams understand the challenges and opportunities for cancer treatment and employ their experience and expertise in disease biology, drug discovery, drug delivery and clinical trials to improve patient treatment. With our strong focus on industry engagement and commercialisation, we continue to build a safer, smarter and healthier future." - UniSA Professor Alan Boddy, Dean of Research, Clinical and Health Sciences

Connect with UniSA through our Enterprise Hub:



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