

CNSDOSE GENETIC TOOL MAKES PERSONALISED MEDICINE A REALITY

EXPORT CASE STUDY | FEBRUARY 2019

An Australian biotech company, CNSdose, has developed and launched a DNA-guided prescription tool that helps doctors to personalise treatments, including for depression.

With the help of Austrade in Australia and Houston, together with Australian–US Government bio-tech programs, CNSdose has launched its DNA-guided prescription aid in 500 clinics, mostly in the United States and Australia. Detailed market research by Austrade staff in Singapore is now helping the company plan for expansion across Asia-Pacific.

A genetic test to hone prescriptions

The new CNSdose tool, called Amplis™, helps physicians to personalise prescriptions. With genetic guidance that assesses multiple patient factors – including mental health issues – doctors should be able to reduce the risks of adverse medical reactions, select the optimal first-time treatment and avoid polypharmacy issues in elderly patients.

‘Our goal was to develop a tool to reduce the human and economic cost of trial-and-error prescribing,’ says Dr Harris Eyre, Chief Medical Officer of CNSdose. ‘Amplis provides the clinician and patient with a shared decision-making tool. It empowers consumers to engage more in their treatment decisions and empowers clinicians to optimise treatment regimens.’

The CNSdose tool is developed from research into blood-brain barrier genetics that aids the selection of optimal antidepressants for the treatment of depression. Following successful clinical trials, the CNSdose tool is now gaining traction among multiple medical specialties, including psychiatry, geriatrics and neurology.



Dr Harris Eyre, Chief Medical Officer, CNSdose

‘The Austrade teams in Australia and the US are wonderfully supportive and astute, easy to engage with and motivated for the betterment of our field of personalised mental health.’

Dr Harris Eyre, Chief Medical Officer, CNSdose.

Australia program a launchpad for US development

In 2017, Dr Eyre and team participated in the Melbourne Accelerator Program, a five-month, university-aligned program for entrepreneurs that provides mentoring, and access to global partners and investors. This encouraged the CNSdose team to explore overseas options for further research as well as the prospects for commercialising the CNSdose tool.

The Australian Government’s Bio-Bridge Initiative proved the perfect springboard. The initiative is a collaboration with the Texas Medical Center (TMC)



Australian Government

Australian Trade and Investment Commission



in the US, and helps Australian medical entrepreneurs work within one of the world's biggest medical precincts. The centre selected CNSdose as a participant in their TMCx program, which provides facilities for health-related research and development.

'For an entrepreneur in Australian biotech research, working within the TMC has been transformational,' he says. 'It accelerated our market traction, capital raising and product pipeline. The TMC is a remarkable place with serious investment in innovation and is highly active with about 10 million patients seen per year.'

'The Austrade teams in Australia and the US are wonderfully supportive and astute, easy to engage with and motivated for the betterment of our field of personalised mental health.'

CNSdose technologies have now been adopted in a number of eminent academic health centres, including the University of Texas Physicians, and approximately 500 clinics across the US and Australia such as the Albert Road Clinic and The Melbourne Clinic.

Working with Austrade to access international markets

CNSdose turned to Austrade for assistance when the company decided to go global.

On working with Austrade, Dr Eyre says: 'The Austrade teams in Australia and the US are wonderfully supportive and astute, easy to engage with, and motivated for the betterment of our field of personalised mental health.'

'We worked with Austrade to gain an understanding of the opportunities in international markets,' he adds. 'The US made sense as the first launch country for the product as the market there is so large and there was an existing reimbursement code. However, it was always critical for us to maintain our connection with Australia and continue to ensure that our work benefitted Australians.'

CNSdose also received an Export Market Development Grant to support its international marketing efforts. Dr Eyre said the funds were helpful in providing capital support to fund various critical activities

Next stop: Asia-Pacific

With the support of Austrade and the Victorian Government, CNSdose now aims to replicate its US and Australian market success in the Asia-Pacific region. The company's initial focus is on Singapore, where it receives tailored services such as detailed market research. Austrade and the Victorian Government are also helping to identify key opinion leaders and potential partners.

CNSdose has also appeared at regional medical conferences. The company showcased Amplis at the World Congress of Asian Psychiatry in Sydney in 2019. The conference was hosted by the Royal Australian and New Zealand College of Psychiatrists, the World Psychiatric Association, and the Asian Federation of Psychiatric Associations.

About Austrade

The Australian Trade and Investment Commission – Austrade – contributes to Australia's economic prosperity by helping Australian businesses, education institutions, tourism operators, governments and citizens as they:

- › develop international markets
- › win productive foreign direct investment
- › promote international education
- › strengthen Australia's tourism industry
- › seek consular and passport services.

Disclaimer

Whereas every effort has been made to ensure the information given in this document is accurate, the Australian Trade and Investment Commission does not provide warranty or accept liability for any loss arising from reliance on such information.

©Commonwealth of Australia 2019