

Left to our own devices: SA's med-tech bonanza

VALERINA CHANGARATHIL



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ME

HI-TECH VISION: MDPP's Re-Timer glasses help change sleep cycles for shift workers and travellers.

HI-TECH medical devices research under way in South Australia holds the promise of changing conventional pain and healthcare management choices to improve lifestyle outcomes.

Some of the exciting projects in the pipeline include a nasal delivery device to administer pain relief, a device to prevent deep vein thrombosis and gaming consoles for children with cerebral palsy.

There are also shopping simulators to assess the progress of stroke victims, an automatic screwdriver for surgeons to optimise healing of broken bones and wearable technology that

alerts young people with Type 1 diabetics about serious dips in blood sugar levels.

Most of these projects are driven or supported by industry and have global applications, ensuring a strong commercial focus.

One of the game-changers or influencers on the national scene, Karen Reynolds heads Flinders University's Medical Device Research Institute and Medical Devices Partnering Program, which also delivers the state government's Medical Technologies Program.

"South Australia's research capability is extremely strong in health and medicine generally," she said.

"We (the state) are acknowledged as a pioneer in the biomedical engineering field and have some of the leading minds in the country."

"One of the things that sets us apart is our commitment to working with both end-users and clinical communities and industry to ensure our research is relevant and accessible," Ms Reynolds said.

At MDRI, research focuses on areas of priority and encourages projects that have a

common focus on delivering benefits to the medical and allied health sectors.

And at MDPP, the projects are in response to industry-driven problems and connect ideas to develop innovative medical devices and assistive technologies.

A thriving ecosystem for further industry collaboration is already present in the state, with another 12 projects under the taxpayer-funded Medical Technologies Program (run by Flinders) while the CMAX facility, University of SA, University of Adelaide and publicly-listed companies and smaller entities within the biotech hub at Thebarton pursuing their own opportunities.

The economic benefits are not far behind.

The Green Dispensary is developing the nasal delivery device in collaboration with MDPP.

"We are an SA-based company using local manufacturers to keep jobs here," said Antony Condina, chief executive of TGD. "If successful, this new product will generate 17 more jobs locally, as well as numerous other jobs throughout the supply chain.

"The support we are receiving from the MDPP is very valuable. It will help to improve the device's current design so it is cheaper to manufacture in SA and more effective and easy-to-use by clinicians and patients.

"This is important for ensuring commercial success."

Another example of a win-win collaboration is the Volar Radius Plate, a wrist fracture healing device developed by the University of Adelaide and local medical device specialist Austofix, and part-funded by the State Government.

Expected to be suitable for 90 per cent of wrist fractures, it will be launched at the end of the year after surgeons in three states start testing it next month.

Medical devices research is also considered among the state's future economic boosters because of its export potential. The state government has committed \$750,000 over three years to form the Med-Dev Alliance to commercialise products and find export markets. The Medical Technology Association of Australia predicts a \$US455 billion global market for medical products by 2018.

So, although medical device research is usually associated with longer delivery times, some of these projects are tipped to be close to market thanks to public and private funding support and an ageing demographic with a high healthcare demand.

The stars seem to be aligned to see more names joining the list of globally successful SA medical sector companies, including handheld ultrasound pioneer

Signostics, jet lageliminating glasses maker Re-Time, ophthalmic devices manufacture Ellex Medical Lasers, lab analysis products specialist LBT Innovations, IVF expert Reproductive Health Science and cancer drugs researcher Bionomics.