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Research award for local scientist

Otago Daily Times, Dunedin

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Health reporter

A CHANCE discovery while investigating a rare disorder could propel a University of Otago researcher towards making people's recovery from serious surgery easier.

Emma Wade, a research fellow in the laboratory for genomic medicine, women's and children's health, was part of a team which for the past four years had been investigating a potential genetic cause for a young New Zealander's extremely rare medical condition.

Coincidentally, researchers lit upon a missing protein that might have been the cause of the person's condition, but that they felt could be used to specifically help heal the fascia — strong connective tissue which supports and holds internal organs and soft tissue in the body.

The find intrigued Dr Wade, who lodged a proposal with industry body Medicines New Zealand to further explore the idea of using that protein during surgery to aid post-operative healing and to try to prevent post-incisional hernia.

The organisation, which this year revamped its annual awards after a three-year Covid-19 hiatus, last week presented her with its Innovations Jump Start Award.

The \$30,000 prize is intended to give a young researcher a career boost and support their research costs.

"The really nice thing about this award is that it supports

something that is new for me," Dr Wade said.

"It stems from laboratory work, we have found something which I want to explore, and hopefully this award will help me to be able to develop this work into a career trajectory."

While still some way away from testing to prove it works in humans, early signs were encouraging enough for Associate Prof Greg Walker from the Pharmacy School to be involved with the project and working out how the smart biological medicine could be dispensed.

"We have manufactured little vessels that express our protein in the lab," Dr Wade said.

"Greg is going to help us package it up into something.

"We have loads of ideas — we have thought about putting it in bandages; we have thought about putting it in a suture, in a paste, a gel or a spray."

Dr Wade said at this stage the likely first use of the technique could be in aiding recovery from hernia surgery.

It could also be used for included Caesarean sections and pelvic prolapse, and could potentially be used during trauma surgery or planned procedures, Dr Wade said.

"The cool thing about this research is that you can take findings from a very rare case and apply it to everybody in the population.

"Ultimately, the idea is that any surgery or any injury that damages that fascia layer, you could use it."

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