

Oral insulin won't needle diabetics

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“Our innovation is the development of a new chemical entity, a small drug molecule we have discovered and developed, that can be taken orally as a tablet to replace insulin per se.” - Professor Helmerhorst. Flickr: Thomas Thomas

A team of researchers at Curtin University have found a substitute for insulin to help treat diabetes orally.

Over 10 years, Professor Erik Helmerhorst and his colleagues looked at millions of [compounds](#) on pharmaceutical databases to try to emulate the molecular map of insulin.

“On a computer, in silico, we searched three million compound structures for their ability to fit that map,” explains Professor Helmerhorst.

In short, they found one, and are developing it as part of their dream to

‘take the needle out of [diabetes](#)’.

“Our innovation is the development of a new chemical entity, a small drug molecule we have discovered and developed, that can be taken orally as a tablet to replace insulin per se,” said Professor Helmerhorst.

Professor Helmerhorst outlined his team’s quest at the Univation 2011 conference in Perth this week.

The annual conference showcases research from four WA universities, with the aim of getting further backing from investors and commercialisation experts.

The research, undertaken with Epichem, has the ability to revolutionise the treatment of diabetes, which is a growing worldwide problem.

Professor Helmerhorst said there was a niche market for their drug molecule to target Type 2 diabetics to help delay to the onset of insulin dependency.

He said 95 per cent of diabetics have Type 2 [diabetes](#), who last year spend some \$10 billion a year on insulin.

“The reality is that nearly one-third of Type 2 diabetics will end up needing insulin therapy at some stage,” he said.

He said the insulin substitute would appeal to people who were averse to taking [insulin](#) via injections or by pumps.

Like all the technologies showcased at Univation 2011, the Curtin researchers were seeking funding and investor backing to help develop their technologies to the next level.

And it appears they might be on the right track.

“We’ve had a lot of interest already, including a Chinese and UK group interested in the technology,” Professor Helmerhorst said.

“Just today, I’ve had two or three people come up to me and say they’d like to speak to us further.”

Univation 2011 focused on technology presentations from four main categories: greentech, ICT, life sciences and the resources sector.

It featured work from researchers and start-up companies from Curtin University, Edith Cowan University, Murdoch University and The University of Western Australia.

Source: ScienceNetwork Western Australia

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