



20 JAN, 2022

Pigs and us

The Australian, Australia

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The recent transplantation of a pig heart to a human in the US is truly groundbreaking. Your article ("When Pigs Fly", 18/1) correctly highlights the issues concerning the use of pig organs in humans: the ethics of using animal parts, the genetic modification of the animals and the infectious risk versus the obvious benefit of replacing diseased organs and saving human lives.

What readers may not be aware of is that pig tissue has been transplanted into at least three dozen people with type 1 diabetes and Parkinson's disease over the past two decades, and in our part of the world – New Zealand. Plans are afoot to conduct the next trial, for Parkinson's disease, here in Australia.

The tissue used has been insulin-producing cells derived from the pancreas and growth factor-producing cells from the brain. The cells have been placed in small capsules made of alginate, a product derived from seaweed, and implanted in the abdomen and brain respectively.

Unlike with the transplantation of pig organs, recipients do not take anti-rejection drugs because the microcapsules physically protect the implanted cells from the host immune system.

What we have learnt from these studies is that the use of pig cells for the treatment of chronic disease is promising and safe. There have been no significant adverse events in the recipients that can be attributed to infections from the pigs.

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