

# JAPAN APPROVES GROWING HUMAN ORGANS IN ANIMALS FOR FIRST TIME

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Scientists in Japan will begin trying to grow human organs in animals after receiving government permission for the first study of its kind in the country.

The cutting-edge — but controversial — research involves implanting modified animal embryos with human “induced pluripotent stem” (iPS) cells that can be coaxed into forming the building blocks of any part of the body.

It is the first step in what researchers caution is a very long path towards a future where human organs for transplant could be grown inside animals.

The research led by Hiromitsu Nakauchi, a professor of genetics at Stanford University, is the first of its kind to receive government approval after Japan changed its rules on implanting human cells into animals.

Japan had previously required researchers to terminate animal embryos implanted with human cells after 14 days and prevented the embryos from being placed into animal wombs to develop.

But in March those restrictions were dropped, allowing researchers to seek individual permits for research projects. “It took nearly 10 years, but we are now able to start the experiment,” Mr. Nakauchi said.

The research involves generating animal embryos — mice, rats or pigs — that lack a particular organ such as a pancreas.

The modified embryos are then implanted with human iPS cells that can grow into the missing pancreas. The embryos would be transplanted into wombs where they could theoretically be carried to term with a functioning human pancreas.

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