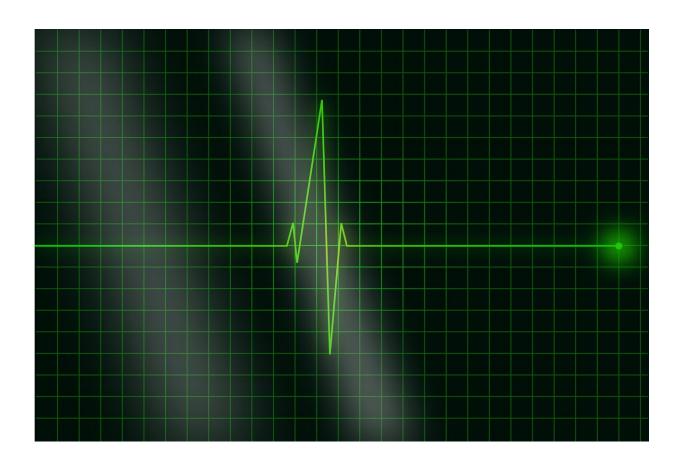


US experts carry out second pig-to-human heart transplant

September 24 2023



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A 58-year-old man this week became the world's second patient to receive a transplant of a genetically modified pig heart, the latest milestone in a growing field of medical research.



Transplanting animal organs into humans, called xenotransplantation, could offer a solution to the chronic shortage of human organ donations. More than 100,000 Americans are currently on waiting lists for <u>organ</u> transplants.

Both <u>heart procedures</u> were carried out by experts from the University of Maryland School of Medicine, with the first patient dying two months after his transplant last year due to "a multitude of factors including his poor state of health" prior to the operation, the university said in a statement Friday.

The latest operation took place on Wednesday, with patient Lawrence Faucette ineligible for a donated human heart due to pre-existing vascular disease and internal bleeding complications.

Without the experimental transplant, the father of two and Navy veteran was facing near-certain heart failure.

"My only real hope left is to go with the <u>pig heart</u>, the xenotransplant," Faucette was quoted as saying prior to the procedure. "At least now I have hope, and I have a chance."

Following the <u>transplant</u>, Faucette was breathing on his own and the <u>new</u> <u>heart</u> was functioning well "without any assistance from supportive devices," the university said.

He was taking conventional anti-rejection drugs as well as receiving a new antibody therapy to prevent his body from damaging or rejecting the new organ.

Xenotransplants are challenging because the patient's immune system will attack the foreign organ. Scientists are trying to circumvent the problem by using organs from genetically modified pigs.



In the past few years, doctors have transplanted kidneys from genetically modified pigs into brain-dead patients.

The NYU Langone Hospital Transplant Institute in New York announced this month that a pig kidney transplanted into a brain-dead patient had functioned for a record-breaking 61 days.

Early xenotransplantation research focused on harvesting organs from primates—for example, a baboon <u>heart</u> was transplanted into a newborn known as "Baby Fae" in 1984, but she survived only 20 days.

Current efforts focus on pigs, which are thought to be ideal donors for humans because of their organ size, their rapid growth and large litters, and the fact they are already raised as a food source.

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Citation: US experts carry out second pig-to-human heart transplant (2023, September 24) retrieved 28 April 2024 from <u>https://medicalxpress.com/news/2023-09-experts-pig-to-human-heart-transplant.html</u>

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