

This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers visit <https://www.djreprints.com>.

<https://www.wsj.com/articles/pig-medicine-organ-donation-kidney-heart-transplant-xenotransplantation-end-state-renal-disease-medicare-11644439815>

OPINION | COMMENTARY

## *The Next Pig Thing in Medicine*

A man is still alive a month after a pig heart transplant.

By Sally Satel

Feb. 9, 2022 5:02 pm ET



PHOTO: GETTY IMAGES/ISTOCKPHOTO

I had my first kidney transplant in 2004. It gave out after 10 years. The replacement, which I received in 2016, functions well but won't last forever. "May your organ outlive you," older transplant patients tell each other. Otherwise, you may not survive the queue for a new one.

That's why recent breakthroughs in xenotransplantation—the implantation of animal tissues and organs across species—have been exhilarating. In September, doctors at NYU Langone Medical Center attached a pig kidney to blood vessels in a dead woman's leg (with her family's permission). It produced urine and cleared waste products during the 54-hour observation period. Two months later, they repeated the procedure.

Also in September, a team at the University of Alabama at Birmingham implanted the first-ever genetically modified pig kidneys into the body of Jim Parsons, 57, of Huntsville, who had been left brain-dead by a motorcycle accident. The new kidneys turned "beautiful and pink," the lead surgeon said. The experiment lasted 77 hours.

Then, on Jan. 7, surgeons at the University of Maryland transplanted a heart from a genetically modified pig into David Bennett Sr., who doctors said had exhausted all other treatment options. Mr. Bennett, 57, is still alive.

More than 90,000 Americans are waiting for a kidney. In 2021 fewer than 25,000 received one, and some 41,000 were added to the national waiting list. On the average day, around a dozen people on the list die.

Dialysis—an hourslong process of having your blood cleansed—extends life, though not nearly as much as a transplant, but is a several-times-a-week ordeal. More than half a million Americans have end-stage kidney disease and depend on dialysis, according to the National Institute of Diabetes and Digestive and Kidney Diseases. Medicare's End State Renal Disease program spent \$51 billion on dialysis in 2019, more than 6% of the total Medicare budget.

Xenotransplantation is the future. Jayme Locke, the surgeon who headed the University of Alabama team, said she hopes to be able to offer pig-kidney transplants within five years. Godspeed to Dr. Locke, her colleagues and the noble pig. Make the donor shortage—its heartbreak, its unfairness and its expense—a thing of the past.

*Dr. Satel is a senior fellow at the American Enterprise Institute and a visiting professor of psychiatry at Columbia University's Vagelos College of Physicians and Surgeons.*

*Appeared in the February 10, 2022, print edition.*

Copyright © 2022 Dow Jones & Company, Inc. All Rights Reserved

This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers visit <https://www.djreprints.com>.