NIH FUNDED THIS ~

© iStock.com/dra schwart

IS THIS HOW YOU WANT YOUR TAX DOLLARS SPENT?

Since 2015, the National Institutes of Health (NIH) has squandered **\$300,000 of your tax money** on cruel and invasive "parabiosis" experiments at the University of Virginia (UVA) in which pairs of mice are **surgically joined together** so that they will share a bloodstream.

The experimenters cut each mouse from the elbow to the knee—almost the full length of the body—then stitched them together.

Next they **injected a bacterial toxin into the mice to create sepsis**, a grave condition in which the body turns on itself, producing symptoms that include widespread pain, difficulty breathing, and multi-organ failure. **The mice suffered for a long time before finally dying in some cases, for days.**

The kicker? These experiments won't help humans.



This is from a video in which experimenters surgically join two mice so that they will share blood circulation. The procedure was performed at the University of California, Los Angeles. A similar procedure was recently performed on mice at the University of Virginia.

A MASSIVE WASTE OF TIME, MONEY, AND LIFE, CONTRIBUTING NOTHING TO HUMAN MEDICINE



Shown here in the journal article describing the UVA experiment, the skin on this mouse's back was cut open, tented, and fitted with a window so that experimenters could observe the blood circulation. (Jarrod A. Call et al, *Free Radical Biology & Medicine*) In 2013, a landmark study that took a decade to complete and involved dozens of researchers from institutions across the country found that the **results of sepsis experiments conducted on mice can't be applied to humans**, because the condition in mice isn't the same as it is in humans. The study was so groundbreaking that NIH Director Francis Collins published an article about it, lamenting the time and resources spent developing 150 drugs that had successfully treated sepsis in mice but failed in human clinical trials.

In spite of this, NIH continues to fund sepsis experiments on mice.

An expert working group consisting of veterinarians, animal technologists, and scientists have suggested multiple modern research methods to replace the use of animals in sepsis studies—including *in vitro* cell culture models, "tissue chips," synthetic human models, systems and computational biology, and population and clinical studies.

Please urge NIH to stop squandering our tax dollars and animals' lives.
Take action at PETA.org/Sepsis.

References

Call JA, Donet J, Martin KS, Sharma AK, Chen X, Zhang J, Cai J, Galarreta CA, Okutsu M, Du Z, et al. 2017. Muscle-derived extracellular superoxide dismutase inhibits endothelial activation and protects against multiple organ dysfunction syndrome in mice. *Free Radic Biol Med* 113: 212-223.

Collins F. 2013. Of mice, men, and medicine. NIH Director's Blog. Available from https://directorsblog.nih.gov/2013/02/19/of-mice-men-and-medicine/. Accessed December 5, 2017.

Kamran P, Sereti, K-I, Zhao P, Ali SR, Weissman IL, Ardehali, R. 2013. Parabiosis in mice: a detailed protocol. J Vis Exp (80): e50556.

Lilley E, Armstrong R, Clark N, Gray P, Hawkins P, Mason K, López-Salesansky N, Stark AK, Jackson SK, Thiemermann C, et al. 2015. Refinement of animal models of sepsis and septic shock. Shock 43(4):304-316.

Seok J, Warren HS, Cuenca AG, Mindrinos MN, Baker HV, Xu W, Richards DR, McDonald-Smith GP, Gao H, Hennessy L, et al. 2013. Genomic responses in mouse models poorly mimic human inflammatory diseases. *Proc Natl Acad Sci* 110(9):3507-3512.

