

## Can people really inherit memories?

In December last year, researchers Brian Dias and Kerry Ressler [made a splash](#) with [a paper seeming to show that memories can be inherited](#).

This article, published in *Nature Neuroscience*, reported that if adult mice are taught to be afraid of a particular smell, then their children will also fear it. Which is pretty wild. [Epigenetics](#) was proposed as the mechanism.

Now, however, psychologist Gregory Francis says that the data Dias and Ressler published are just too good to be true: [Too much success for recent groundbreaking epigenetic experiments](#).

Francis notes that the Dias and Ressler paper reported many individual experiments on mice behavior and each one found statistically significant evidence of inherited fear. However...

"The probability of a set of 10 behavioral experiments like these all succeeding is the product of the probabilities: 0.023. This value is an estimate of the reproducibility of the statistical outcomes for these behavioral studies."

That 0.023 means that even if the epigenetic memory effect is real and just like the paper claims it is, the probability of getting uniformly positive results is 2.3 percent. Francis later writes that, at if you also consider the neuroanatomical evidence also presented in the paper (likewise all positive, he claims), the probability drops to 0.004 or 0.4 percent.

**Read full, original article:** [Inherited Memories: Too Good To Be True?](#)