Data Error Undermines Study About Crispr Babies' Lifespans

Kristen V Brown September 28, 2019, 1:33 PM CDT

Last year, when Chinese scientist He Jiankui created theworld's first gene-edit ed babies, criticism that he had acted irresponsibly promptly followed.

A scientific study published in June seemed to bolster those criticisms, finding that the genetic mutation He used in an attempt to create twins resistant to HIV may be linked to a shorter lifespan. But on Friday, the June paper's senior author said his study contained a serious flaw.

"The one thing that all scientists fear the most is to find out that a major result they have published was based on erroneous data," Rasmus Nielsen, a scientist at University of California, Berkeley, wrote on Twitter.

Nielsen said he had been alerted to a major error in the genetic data on which the research has been based. Nielsen and his colleagues analyzed more than 400,000 genomes and health records in the UK Biobank.

They concluded that people with two copies of a mutation of the CCR5 gene similar to the mutation that had been used in the genetically modified twins had a significantly higher death rate between ages 41 and 78 than people with one or no copies. The mutation, the Berkeley researchers found, was associated with a 21% increase in mortality later in life.

But, Nielsen tweeted, an error in the database "likely explains most or all of our results." He said that the Harvard scientist David Reich had identified an error in the biobank data — data widely used among researchers — that called their findings into question.

Retraction

Nielsen said his team would work with the editors of the journal that published their study, Nature Medicine, to correct the error.

“We are very sorry for the confusion we have spread by publishing these results,” Nielsen said in an emailed comment. “In the light of this, we have requested that Nature Medicine retract our paper.”

In November, He announced that he had edited the CCR5 gene of unborn twins to create a mutation relatively common among northern Europeans, that has been known to protect against HIV, the virus that causes AIDS. He was widely criticized for using the gene-editing technology known as Crispr before its effects are well understood, and for conducting his work secretly.

The Berkeley study sought to better understand the potential health effects of the CCR5 variant. After publication, some scientists had called into question the study’s methodology.