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Have first gene-edited babies been born?

Researcher In China Claims 'Breakthrough', But International Scientific Community Is Sceptical

Hong Kong: A Chinese researcher claims that he helped make the world's first genetically edited babies — twin girls born this month whose DNA he said he altered with a powerful new tool capable of rewriting the very blueprint of life. If true, it would be a profound leap of science and ethics.

A US scientist said he took part in the work in China, but this kind of gene editing is banned in the United States because the DNA changes can pass to future generations and it risks harming other genes.

Many mainstream scientists think it's too unsafe to try.

The researcher, He Jiankui of Shenzhen, said he altered embryos for seven couples during fertility treatments, with one pregnancy resulting thus far. He said his goal was not to cure or prevent an inherited disease, but to try to bestow a trait that few people naturally have — an ability to resist possible future infection with HIV, the AIDS virus.

AP

Researcher He Jiankui said his goal is to try to bestow a trait that few people naturally have — an ability to resist possible future infection with HIV

He said the parents involved declined to be identified or interviewed, and he would not say where they live or where the work was done.

There is no independent confirmation of He's claim, and it has not been published in a journal, where it would be vetted by other experts. He revealed it on Monday in Hong Kong to one of the organizers of an international conference on gene editing that is set to begin on Tuesday, and earlier in exclusive interviews with The Associated Press.

"I feel a strong responsibility that it's not just to make a first, but also make it an example," He told the AP. "Society will decide what to do next in terms of allowing or forbidding such science."

Some scientists were astounded to hear of the claim and strongly condemned it.

It's "unconscionable ... an experiment on human beings that is not morally or ethically defensible," said Dr Kiran Musunuru, a University of Pennsylvania gene editing expert and editor of a genetics journal. "This is far too premature," said Dr Eric Topol, who heads the Scripps Research Translational Institute in California. "We're dealing with the operating instructions of a human being. It's a big deal."

However, one famed geneticist, Harvard University's George Church, defended attempting gene editing for HIV, which he called "a major and growing public health threat." "I think this is justifiable," Church said of that goal.

More than 100 scientists have signed a petition calling for greater oversight on gene editing experiments after He Jiankui's claim.

He's school says it would hire experts to investigate, saying the work "seriously violated academic ethics and standards." A spokesman for He confirmed that he has been on leave from teaching since early this year, but he remains on the faculty and has a lab at the university. Shenzhen city authorities where He's lab is located has also launched a medical and ethics investigation.

In recent years scientists have discovered a relatively easy way to edit genes, the strands of DNA that govern the body. The tool, called CRISPR-cas9, makes it possible to operate on DNA to supply a needed gene or disable one that's causing problems. It's only recently been tried in adults to treat deadly diseases, and the changes are confined to that person.

He Jiankui, who goes by "JK," and studied at Rice and Stanford universities in the US, said he practiced editing mice, monkey and human embryos in the lab for several years. He said he chose to try embryo gene editing for HIV because these infections are a big problem in China. He sought to disable a gene called CCR5 that forms a protein doorway that allows HIV, the virus that causes AIDS, to enter a cell. AP