

Gene-edited baby trial 'paused': China scientist

November 28 2018, by Helen Roxburgh And Yan Zhao



He Jiankui defended his work in front of a packed Hong Kong biomedical conference, explaining how he had successfully altered the DNA of twin girls born to an HIV-positive father

The Chinese scientist who claims to have created the world's first genetically-edited babies said Wednesday the trial had been paused,

following an international outcry over the highly controversial procedure.

He Jiankui defended his work in front of a packed Hong Kong biomedical conference, saying he had successfully altered the DNA of twin girls born to an HIV-positive father, an apparent medical first.

A total of eight volunteer couples—HIV-positive fathers and HIV-negative mothers—had signed up to the trial, with one dropping out before it was halted.

He said there had been "another potential pregnancy" involving a second couple, but when questioned further agreed it had been a chemical pregnancy—a term referring to a very early miscarriage.

"I must apologise this result was leaked unexpectedly," He said of the apparent breakthrough "The clinical trial was paused due to the current situation," he added.

The conference has been upended by the gene-edited baby revelations claims, after university professor He posted a video claiming the twin girls—born a few weeks ago—had had their DNA altered to prevent them from contracting HIV.

The move prompted a heated debate among the scientific community, with many raising concerns over the lack of verified data and the risks of exposing healthy embryos to [gene editing](#).

Editing [human embryos](#) can create unintended mutations in other areas—so-called "off-target effects"—which can be carried through to birth, experts warned.

But He took to the stage Wednesday to justify his work, and was

bombarded with questions as he told the audience that the parents were aware of the potential dangers when they signed up.

"The volunteers were informed of the risk posed by the existence of one potential off-target and they decided to implant," he said.

He also said the university where he works had been "unaware of the study's conduct."

Southern University of Science and Technology, in the southern Chinese city of Shenzhen, had earlier distanced itself from He, saying he had been on unpaid leave since February and had "seriously violated academic ethics and codes of conduct".

Organisers of the Second International Summit on Human Genome Editing, which opened Tuesday, also said they had been unaware of He's work.

Conference moderator Robin Lovell-Badge said He's trial was a "backward step" for the science industry, but described the babies' birth as "momentous" nonetheless.

"This is an example of an approach that was not sufficiently careful and cautious and proportionate," he said.

"Clearly however it is a point in history... These two babies would appear to be the first gene-edited babies. So it is a momentous point in history."

Summit chair David Baltimore, a Nobel laureate, said there had been "a failure of self-regulation by the [scientific community](#) because of a lack of transparency."

He's claim would "be considered irresponsible", Baltimore said.

Bypassed ethical process

He, who was educated at Stanford University, said the twins' DNA was modified using CRISPR, a technique which allows scientists to remove and replace a strand with pinpoint precision.

Gene editing is a potential fix for heritable diseases but it is extremely controversial because the changes would be passed down to future generations and could eventually affect the entire gene pool.

In many countries the editing of human DNA is tightly controlled.

Qiu Renzong, formerly the vice president of the Chinese Ministry of Health's ethics committee, told reporters at the conference that lax regulations in China mean that scientists who break the rules often face no punishment, and think of the ministry as being "without teeth".

China's National Health Commission ordered an "immediate investigation" into the case, the official Xinhua news agency reported, while the Shenzhen hospital meant to have approved the research programme denied its involvement.

A union of Chinese scientists issued a statement saying it "resolutely opposes so-called scientific researches and biotech applications that violate the spirit of science and ethics," Xinhua said.

The case has damaged China's international reputation in the field, said the Chinese Union of Life Science Societies.

This is not the first time Chinese researchers have experimented with human embryo technology.

Last September, scientists at Sun Yat-sen University used an adapted

version of gene-editing to correct a disease-causing mutation in human embryos.

There is also a history of fraud within China's academic community—including a scandal last year that led to the withdrawal of 100 "compromised" academic papers.

A joint statement Monday from a group of 100 scientists in China criticised He Jiankui's claims and called them a "great blow to the global reputation and development of biomedical research in China".

© 2018 AFP

Citation: Gene-edited baby trial 'paused': China scientist (2018, November 28) retrieved 3 April 2024 from <https://medicalxpress.com/news/2018-11-gene-edited-baby-trial-china-scientist.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--