

Chinese researchers produce genetically modified human embryos for second time

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.

Scientists in China have [reported](#) genetically modifying human embryos in what is only the second published experiment of its kind. In 2015, a different team of Chinese researchers [edited human embryos](#) in an attempt to remove genes responsible for a dangerous blood disorder. In this new research, scientists from Guangzhou Medical University tried to add a mutation to embryos instead, attempting to make them HIV-resistant. In both cases, the experiments were only partially successful, and were carried out using non-viable human embryos that were incapable of growing into adults.

In this latest research published in the *Journal of Assisted Reproduction and Genetics*, the scientists collected 213 fertilized human eggs from 87 patients in a fertility clinic. The eggs were all unsuitable for in vitro fertilization because they contained an extra set of chromosomes, and had been donated for research purposes. Using the gene-editing tool CRISPR, the scientists were able to introduce a naturally-occurring genetic mutation into the embryos. This mutation, which modifies an immune-cell gene called CCR5, makes humans that carry it resistant to the HIV virus.

“The results are both comforting and disturbing,” said Dr. Peter Donovan, a professor of biological chemistry and development cell biology at the University of California. “The good news is that the technique worked for this group in the same way that it did for the first group. This indicates the reproducibility of the science [...] However, this group of researchers also reproduced another finding described by the first group, namely that this type of gene editing also causes off-target effects.”

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