

# British bid to genetically modify human embryos

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Britain's embryology regulator has received an application to genetically modify an embryo, which would be the first such attempt since a Chinese effort earlier this year.

"We have recently received an application to use CRISPR-Cas9 in one of our licensed research projects, and it will be considered in due course," said a spokesman for the Human Fertilisation and Embryology Authority (HFEA).

The CRISPR-Cas9 technique can target and modify faulty DNA with greater accuracy.

Kathy Miakan, a stem cell scientist at the Francis Crick Institute in London, said she had asked the HFEA for the licence to conduct [genome editing](#) on [human embryos](#).

"The knowledge we acquire will be very important for understanding how a healthy [human](#) embryo develops, and this will inform our understanding of the causes of miscarriage," she told The Guardian newspaper.

The modified [embryos](#) will not become children as they must be destroyed within 14 days and can only be used for basic research.

Niakan wants to find the genes at play in the first few days of [human fertilisation](#), The Guardian said, when an embryo develops a coating of

cells that later become the placenta.

"Genome editing of embryos for use in treatment is illegal," said the HFEA spokesman.

"It has been permissible in research since 2009, as long as the research project meets the criteria in the legislation and it is done under an HFEA licence."

In a research paper published in April, Chinese scientists described how they were able to manipulate the genomes of human embryos for the first time, which raised ethical concerns about the new frontier in science.

Junjiu Huang, a gene-function researcher at Sun Yat-sen University in Guangzhou, and colleagues describe how they used the CRISPR-Cas9 technique to edit the genomes of embryos obtained from a fertility clinic.

The embryos were described as non-viable, and could not have resulted in a live birth because they had an extra set of chromosomes after being fertilised by two sperm.

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