## U.K. OKs three-parent IVF treatment to prevent disease but critics fear birth of 'designer babies'

Reuters

• Dec 16, 2016

LONDON – Britain on Thursday became the first country to formally license an in-vitro fertilization (IVF) treatment designed to create babies from three people.

Critics of the treatment say it is a dangerous step that will lead to the creation of genetically modified "designer babies."

In a long-awaited decision, Britain's Human Fertilisation and Embryology Authority (HFEA) gave the final go-ahead for the treatment known as mitochondrial transfer, which doctors say could help prevent incurable inherited diseases.

Britain's Parliament voted last year to change the law to allow the treatments if and when they were ready for licensing. This latest HFEA decision means the first babies created by the technique in Britain could be born in 2017.

The government's chief scientific adviser, Mark Walport, praised the HFEA'S decision as a "careful and considered" assessment that put Britain at the forefront of medical advances.

The technique involves intervening in the fertilization process to remove mitochondria, which act as tiny energy-generating batteries inside cells, and which, if faulty, can cause fatal heart problems, liver failure, brain disorders, blindness and muscular dystrophy.

The treatment is designed to help families with mitochondrial diseases — incurable conditions passed down the maternal line that affect around 1 in 6,500 children worldwide.

"Mitochondrial donation offers a real opportunity to cure a class of potentially devastating inherited conditions and will bring hope to hundreds of affected families in the U.K.," said Dagan Wells, a professor at Oxford University's biomedical research center and one of many experts welcoming the decision.

The treatment is known as "three-parent" IVF because the babies, born from genetically modified embryos, would have DNA from a mother, a father and from a female donor.

Jeremy Farrar, director of the Wellcome Trust global health charity, said it was a "landmark day for people living with mitochondrial disease.

Research teams around the world have tested and trialled the techniques in a series of pre-clinical experiments, but as yet they have not been used to treat patients in Britain.

The world's first and so-far only known mitochondrial transfer baby was born earlier this year after U.S. doctors working at a clinic in Mexico helped a Jordanian couple conceive using the new three-way treatment.

David King of the campaign group Human Genetics Alert said the HFEA's move would allow use of a "dangerous and medically unnecessary technology.

"This decision opens the door to the world of GM designer babies," he said in an emailed statement.

http://www.japantimes.co.jp/news/2016/12/16/world/science-health-world/u-k-oks-three -parent-ivf-treatment-prevent-disease-critics-fear-birth-designer-babies/