



# Don't dismiss gene editing too quickly, FRAME says

## Call to consider human embryo genetic modification carefully

There is growing opposition to genetic modification of human embryos but FRAME believes the technology should not be dismissed without careful consideration.

"This kind of procedure could have the potential to fix many human health problems, although there are serious ethical concerns to take into account" said Scientific Director Dr Gerry Kenna.

Supporters of genetic modification believe it will be invaluable in the future to correct inherited diseases, but opponents fear the technique would give parents the opportunity to create designer children with enhanced skills and traits.

There is already a ban in the US on 'germline editing' in which parents with known genetic defects would be able to 'weed out' the problem by manipulating an egg or sperm to repair or replace faulty stretches of DNA. However, no such limitations exist on embryonic alteration.

"Gene modification has the scientific potential to treat many catastrophic human diseases and we should not be afraid to develop it simply because of ethical concerns. With the right ethical and practical constraints in place the technology should be perfectly safe," Dr Kenna continued.

The technology would not be suitable for all diseases, but where there is strong evidence that a condition is caused by a single gene, FRAME believes it should be investigated as a possible treatment.

Among the illnesses that could be treated are cystic fibrosis, muscular dystrophy, and some forms of liver disease that mean young children must receive transplants if they are to survive even into infancy.

Earlier this week (1-3 December) the US National Academy of Sciences held an international summit on human gene editing in association with the Chinese Academy of Sciences and the U.K.'s Royal Society. Their aim was to provide researchers, clinicians, policymakers, and societies around the world with a comprehensive understanding of human gene editing, to help inform decision making about the research and its application.

It considered scientific, historical and legal aspects of the technology including current limitations and how its use would be governed.

The event attracted criticism from a number of organisations including the campaign groups The Center for Genetics and Society and Friends of the Earth.

## FRAME

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FRAME is the Fund for the Replacement of Animals in Medical Experiments.

It promotes the replacement of laboratory animals with non-animal methods, through better science.

Its ultimate aim is the elimination of the need to use laboratory animals in any kind of scientific or medical procedures.