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Clone team want to grow human cells in rabbit eggs

by JULIE WHELDON, Daily Mail

British scientists want to create embryos by combining rabbit eggs with human DNA, it has emerged.

They hope the controversial move will boost stem cell research into incurable diseases by giving them a plentiful supply of eggs on which to hone their skills.

Do you think animal/human crosses should be banned? Tell us below on reader comments.

The scientists claim the development is needed as current human egg shortages are likely to worsen following a recent cloning scandal in which Korean research was exposed as fake.

However, ethical campaigners last night called the idea "repugnant" and "very disturbing".

A team led by Professor Ian Wilmut - the pioneer behind Dolly the Sheep, the first mammal cloned from an adult cell - is currently trying to use stem cells from embryos to learn more about the triggers for motor neurone disease.

Stem cells are building blocks that can turn into any part of the body. The team plans to turn them into nerve tissue, so scientists can then study how disease develops in the laboratory.

Until now Professor Wilmut, of Edinburgh University, and his team have been relying on donations of human eggs to try to harvest the stem cells.

However, they cannot get enough as the procedure is not without risks to women.

They are now in discussion with the Human Fertilisation and Embryology Authority, which regulates embryo research, about using rabbit eggs instead.

The plan was revealed by one of Professor Wilmut's research colleagues. Professor Chris Shaw, from King's College London, said they hoped to take a rabbit egg, remove its genetic material and replace it with human DNA.

Stimulated egg

The egg would then be stimulated to turn into an embryo, from which they could harvest stem cells. The ultimate aim is to be able to grow several motor neurone disease stem cell lines - banks from which limitless supplies can be obtained - so they can study how the condition develops.

It is not entirely clear how the research would be covered by existing laws. The embryo would have only human genetic information inside, but rabbit proteins would still be present.

And because the impact of these proteins is not yet known, it would not be considered a true clone - even though it would contain just one person's DNA and be created through standard cloning methods.

The HFEA said because the embryo would be virtually indistinguishable from a human embryo, the researchers would need to apply for a licence and prove the research is "necessary and desirable".

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And because it began life as an animal-human hybrid, the embryo would have to be destroyed by the time it was 14 days old and could never be implanted into a woman and allowed to grow.

Professor Shaw said there was an increased need to get eggs from an alternative source because he expects donations to plummet after the scandal in South Korea.

Professor Hwang Woo-Suk claimed he had created cloned human embryos and 11 sets of stem cells tailor-made to patients. This week an investigation concluded both pieces of research were fabricated.

Professor Shaw said: "People's emotional response to this scandal may be to decide not to engage with the research."

Josephine Quintavalle, of Comment on Reproductive Ethics, said most people would find the proposed research repugnant.

"It would create something profoundly abnormal," she said. "It is so perverse and I cannot believe that such a convoluted way is necessary to perfect stem cell technology."

Similar research has been done in China, and animal cells have been used in fertility research. However this research, with its combination of cloning, stem cells, animal eggs and human DNA, would be the first of its kind in Britain.

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