

# Glow-in-the-dark cat could help cut disease

By Lucy Cockcroft

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Scientists have genetically modified three kittens so they appear fluorescent under ultra-violet light in a procedure which could help develop treatments for human genetic diseases.

A team of scientists led by Kong Il-keun at Gyeongsang National University, South Korea, cloned the cats after manipulating a gene to change their skin colour.

The fluffy white Turkish Angora cats now glow red when exposed to ultraviolet light and the scientists believe the process could be used to develop treatments for a range of genetic illnesses. The technology can also help clone endangered animals like tigers, leopards and wildcats.

To clone the cats the team used skin cells of the mother cat and modified its genes to make them fluorescent by using a virus, which was transplanted into the ova. The ova were then implanted into the womb of the donor cat.

The three cats were born in January and February. One was stillborn while two others grew to become adult Turkish Angoras, weighing 3kg and 3.5kg.

advertisement A spokesman for the Ministry of Science and Technology in Seoul said: "The ability to produce cloned cats with the manipulated genes is significant as it could be used for developing treatments for genetic diseases and for reproducing model animals suffering from the same diseases as humans.

Mr Il-keun said: "This technology can be applied to clone animals suffering from the same diseases as humans. It will also help develop stemcell treatments."

Kong said that cloning cats with the same diseases as humans could speed up efforts to find treatment and drugs by allowing scientists to study animals and conduct experiments that are not possible with human patients.

The scientist has already made headlines in South Korea by becoming the first person in the country to clone cats in 2004 and has since been named director of research of a state-supported project to clone animals for therapeutic research.

South Korea's bio-engineering industry suffered a setback after a much-touted achievement by cloning expert Hwang Woo-Suk turned out to have been faked.

The government banned Hwang from research using human eggs after his claims that he created the first human stem cells through cloning were ruled to be bogus last year.

Hwang is standing trial on charges of fraud and embezzlement.

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One of the modified kittens