

# UK starts study on using human DNA in animals

November 9 2009, By MARIA CHENG , AP Medical Writer

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(AP) -- British scientists begin a new study on Tuesday to consider how human DNA is used in animal experiments and to determine what the boundaries of such controversial science might be.

Though experts have been swapping human and animal DNA for years - like replacing animal genes with human genes or growing human organs in animals - scientists at the Academy of Medical Sciences want to make sure the public is aware of what is happening in laboratories before proceeding further.

"It sounds yucky, but it may be well worth doing if it's going to lead to a cure for something horrible," said Robin Lovell-Badge, a stem cell expert at Britain's National Institute for Medical Research, and a member of the group conducting the study.

At a media briefing in London, Lovell-Badge said there were two main types of experiments: altering an animal's genes by adding human DNA or replacing a specific animal sequence with its human counterpart. Several years ago, [human genes](#) were added to a mouse to create a model of Down's syndrome for scientists to study how the disease evolves, which could lead to potential treatments.

Scientists also have tried to grow human organs in animals that could one day be transplanted back into humans - like a mouse onto whose back scientists grew a human ear. "There are good reasons for doing this, but it may upset some people," Lovell-Badge said.

Two years ago, controversy erupted in Britain after scientists announced plans to create human embryos using empty cow and rabbit eggs. Critics condemned the mixing of human and animal [genetic material](#), though scientists said the embryos would be destroyed after 14 days and would only be used to help them learn how to create human [stem cells](#).

Scientists said they are now trying to determine where the line should be drawn on experiments that use human material in animals. At the moment, the regulation on how much human [DNA](#) can be put into an animal is vague.

"We are trying to work out what is reasonable," said Martin Bobrow, chairman of the group conducting the study. He and others said they recognized people might be nervous about experiments where animals were given human features or brain cells.

David King, director of Human Genetics Alert, an independent watchdog, said he was not convinced such experiments were warranted. "This is a classic example of science going too fast," he said. "If you cannot firmly say exactly what it is you're creating, you should not do it."

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