

UK scientists want human-animal tests monitored

July 22 2011, By MARIA CHENG , AP Medical Writer

(AP) -- British scientists say a new expert body should be formed to regulate experiments mixing animal and human DNA to make sure no medical or ethical boundaries are crossed.

In a report issued on Friday, scientists at the nation's Academy of Medical Sciences said a government organization is needed to advise whether certain tests on animals that use human DNA should be pursued.

Tighter regulation isn't needed for most such experiments, said Martin Bobrow, chair of the group that wrote the report. "But there are a small number of future experiments, which could approach social and ethically sensitive areas which should have an extra layer of scrutiny," he told reporters in London.

The group analyzed evidence from academics, the U.K. government, animal welfare groups and others. An independent survey was also conducted to gather public opinion. It found people were mostly supportive as long as the work might contribute to the development of medical treatments that would be widely available.

Scientists have long been swapping animal and human DNA. Numerous tests on mice with <u>human genes</u> for brain, bone and heart disorders are already under way and experiments on <u>goats</u> implanted with a human gene are also being done to study blood-clotting problems.

Controversy erupted several years ago in Britain after scientists



announced plans to make <u>human embryos</u> with the nucleus removed from cow and rabbit eggs. Authorities allowed limited experiments and ruled the embryos should not be allowed to develop for more than two weeks.

In the latest report, Bobrow and colleagues concluded some experiments should only be allowed under additional monitoring from the new expert body and that a very small number of experiments should not be done at all.

Among experimentation that might spark concern are those where human brain cells might change animal brains, those that could lead to the fertilization of <u>human eggs</u> in animals and any modifications of animals that might create attributes considered uniquely human, like facial features, skin or speech.

Some disagree. "We think some of these should be done, but they should be done in an open way to maintain public confidence," said Robin Lovell-Badge, head of stem cell biology and developmental genetics at Britain's Medical Research Council, one of the expert group members. He said experiments injecting human brain cells into the brains of rats might help develop new stroke treatments or that growing human skin on mice could further understanding of skin cancer.

Other experts said such issues needed to be debated in Parliament and that any advisory body must have a diverse membership. "The danger is you could get scientists effectively regulating scientists," said Dr. Peter Saunders, chief executive of the Christian Medical Fellowship, a group that opposes the creation of human and animal embryos. He said most experiments on animals with <u>human DNA</u> were OK, but that any tests that aim to enhance animals with human material are not acceptable.

Bobrow warned altering animal brains with human brain cells shouldn't



be done just yet. "The closer (an animal brain) is to a human brain, the harder it is to predict what might happen," he said.

Some members of the public surveyed about such potential experiments agreed. "I don't have a problem with it until it gets to the brain," said one respondent to an independent survey done for the Academy of Medical Sciences. "Bits to do with memories, that would be too far - it's a human thing to have a memory."

More information: Academy of Medical Sciences: <u>http://www.acmedsci.ac.uk</u>

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