

RCR Handout: Material Accessed 2012.03.21: Animal subjects

This material was taken from the Online Ethics Center (OEC) Center for Engineering, Ethics and Society (CEES) at the National Academy of Engineering (NAE)

<http://www.onlineethics.org/Resources/Cases/HIVan.aspx>

Case Study 1: Introducing Viruses in the Field

Edith Jones, Ph.D., a senior postdoctoral fellow in veterinary medicine, was appointed to the Committee for the Protection of Animals in Research at her university. She was given the following proposal to review because of her expertise in primate biology.

A team of investigators is proposing to test an altered live virus vaccine for human immunodeficiency virus (HIV) utilizing a free ranging chimpanzee colony. This colony was established for behavioral research studies 20 years earlier on an island near Puerto Rico. Having grown dramatically since its inception, the colony requires daily food supplementation by boat, the support for which is increasingly in jeopardy. The plan is to inject one of the dominant males with HIV and to vaccinate half of the remaining animals, both males and females. All chimpanzees are to be monitored for the development of HIV virus antigens and antibodies, altered T-helper cell numbers, and symptoms. An additional protocol is being formulated that will utilize those animals that become infected for a clinical trial of new chemotherapeutic agents. Chimpanzees were selected because, like humans, they have multiple sexual partners and are susceptible to the virus.*

Although the vaccine was effective in lower species, including transgenic mice, the research group felt that it was necessary to get a definitive answer under field conditions prior to introducing live retroviruses into uninfected human populations.

As principle reviewer, Edith must advise her colleagues as to the appropriateness of this use of animals for research purposes. If you were in Edith's position, what legal and ethical standards would you use to help guide your recommendation?

- (1) What are some of the troublesome issues associated with this set of experiments?
- (2) Does giving an animal a fatal infection constitute cruelty, especially considering the characteristics of HIV infection in humans?
- (3) Is it ethically appropriate to transmit intentionally a human virus in a setting that is not fully controlled?
- (4) If Edith were to respond that the study could not be carried out in chimpanzees, how might it be designed instead for human subjects?

* *This scenario was adapted from one by the AAMC.*