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LETTERS

Embryo Research Guidelines

I would like to clarify two points for readers of Eliot Marshall's article of 19 August, "Rules on embryo research due out" (News & Comment, p. 1024). First, the report of the National Institutes of Health (NIH) Human Embryo Research Panel, a group of outside experts, is still under development. Therefore, an accurate and complete picture of the panel's findings and conclusions cannot now be drawn.

The panel's work, moreover, is one step in a larger policy development process. The process involves a review of the panel report by the Advisory Committee to the Director (ACD) of NIH. This review will continue into the fall and winter. On 1 December, the ACD will deliberate the report in a public session. Only after receiving the advisory committee's recommendations about the panel report will the NIH make any decisions about which areas of research are acceptable for federal funding and what guidelines (not rules, as the article indicates) will be formulated to govern that research.

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Primates and New Viruses

In a ScienceScope item, "Mystery virus fells donor baboons" (10 June, p. 1523), it is reported that a new, uncharacterized virus triggered an outbreak of encephalitis in baboons and was threatening the colony at the Southwest Foundation for Biomedical Research (SFBR), a primate facility that houses close to 3000 baboons. In fact, only a few animals have developed an encephalitis-like disease, making it unlikely that the implicated virus is highly virulent in baboons. Moreover, the infectious agent responsible for this outbreak has probably been around for some time, even if it has only recently caught the attention of scientists.

What is of greater concern is that a virus that infects baboons could also be hazardous to humans under the right circumstances. In the past 2 years, two baboon-to-human liver transplants have been conducted (*1*). The identification of a previously unknown virus in nonhuman primates illustrates the possibility of doing more harm than good through xenograft transplantation: any pathogen carried by a baboon donor would be introduced to the human recipient along with the baboon organ. Most new pandemics arise through inadvertent transmission of viruses from another species (which functions as a natural reservoir) to humans. Surgeons and infectious-disease experts have made good-faith efforts to identify and exclude as organ donors baboons carrying known pathogens such as simian immunodeficiency virus (SIV) and simian T cell leukemia virus; however, it does not follow that the chosen baboons are therefore free from all infectious agents. Baboons carry an abundance of pathogens that are potentially dangerous to humans, including both herpesviruses and retroviruses, which can remain dormant for long periods. Identifying and excluding animals that harbor any number of viruses (some unknown) from transplant studies is virtually impossible.

So far the baboon-to-human liver transplants have been experimental and the human recipients have been terminally ill before transplantation therapy was attempted, but success in any form will likely lead to more investigations and testing until patients begin to recover. It is most disturbing that the public health implications of these studies have not been adequately discussed. One suggestion is to convene virologists, infectious-disease experts, transplant surgeons, and public-policy officials under the guise of the National Institutes of Health (NIH) and the Centers for Disease Control to begin openly discussing the overall risks to the human population. Any panel should be independent of the committees previously constructed by transplantation groups.

At the very least, national guidelines for medical surveillance of transplant recipients and their relatives should be considered: recipients could be quarantined in biosafety conditions for at least 60 days, and all health care personnel could follow accepted NIH guidelines for working with unknown human pathogens. At SFBR, we consider nonhuman primates and their tissues and body fluids to be biohazards and use standard biosafety procedures similar to those required for working with AIDS. Employees of SFBR wear fully protective clothing, including masks and latex gloves, when working with animals or their tissues. We sell these same animals to medical centers, where their tissues may be placed directly into humans along with a cocktail of immunosuppressive drugs. Scientists do not