

## LETTER TO THE EDITOR

### SIMPLE LIES, COMPLEX TRUTHS

*from "The Evening Sun" Baltimore, Monday, November 12, 1990 with permission by Alan Goldberg, Ph. D.*

"It is true that more efficient in vitro tests are developed each year. But these tests evolve from ..... discoveries of the biological mechanism of disease, which originate in part from whole animal studies." Alan Goldberg, Ph. D.

The public will believe a simple lie rather than a complex truth," said 19th century social critic Alexis de Tocqueville. That aphorism could well have been written about the controversy over animal rights.

Front-page headlines in national newspapers recently heralded two reports questioning methods used in animal cancer tests. The reports, written by scientists, were printed in the August 31 issue of the journal Science. In conjunction with the articles' release, one of the lead authors issued a statement that he "did not think animal tests are useful in saying anything about human cancer".

The genetic message fed to the public was food for the simple lie. All animal testing is ineffective, inhumane, unnecessary. This simple lie ridicules the ethical, philosophical and scientific burdens of the topic and the attitudes of the vast majority of biomedical researchers. More important, it seriously threatens the advancement of human and animal well-being.

The complexities of the animal testing issue must be reinforced, for the complex truth has much greater value for humans and animals than does the simple lie.

Animal testing provides a means of evaluating the effects of chemicals on animals. Clearly there is not a perfect correlation between the effects in animals and in human; underlying biological systems in one species may not exist in similar

from in other species. Sometimes a drug is metabolized differently in a rodent-the species used for 90 percent of animal research-than in a human.

Animal tests help scientists understand the biological mechanisms responsible for the conversion of normal function (health) to abnormal function (illness). An illness need not be fully understood to treat its symptoms; however, knowledge of the underlying cause of a disease almost always guarantees a more productive and rational search for a treatment, cure or preventive approach.

Statements that denounce all animal tests imply that there are alternatives (in vitro methodologies) for examining all biological processes. It is true that more efficient in vitro tests are developed each year. But here lies the irony: In vitro typically evolve from the scientist's discovery of the biological mechanism of disease, which originates in part from whole animal studies.

Pregnancy testing is an example. Until this past decade, pregnancy was confirmed by injecting a woman's urine into a rabbit. The rabbit was killed 24 - 48 hours later and its ovaries were examined for "positive signs." Eventually it was found that a hormone in the pregnant woman's urine caused the "positive signs" in the rabbit's ovaries. From knowledge of the biological mechanism gained from former "rabbit test", researchers have been able to develop a simple, efficient in vitro pregnancy test which now is used in clinics or in the privacy of a woman's home.

The current wave of public interest in animal welfare has accelerated efforts to replace animal testing, in vitro methods are developed and their uses are encouraged in place of whole animal tests, but only to the extent that they are consistent with the public's health and safety.

In the meantime, when faced with the ethical, philosophical and scientific dimensions of the animal rights issue, the public needs to be prepared to grapple with the complex truths about animal testing and research:

Not all animal tests have been questioned by scientists.

There is not a yet a full range of viable alternatives to animal testing.

And for the advancement of humans and animals, an integrated approach of clinical, whole animal and in vitro studies is currently the best way to advance science, develop new

products and drugs, and treat, cure and prevent disease.

Since our base of medical knowledge is imperfect, grasping the complex truth is necessary to promote the steady improvement of human and animal well-being with current resources. On the other hand, believing the simple lie will stop progress in its tracks.

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