

Ratty Test Rationale

By ACSH Staff — January 12, 2005

Rodents are an insidious health threat -- but I am not talking about disease-carrying vermin. I am talking about rodents in our nation's most prestigious research laboratories. These animals, through no fault of their own, have been scaring us to death for 50 years while restricting our pursuit of an improved standard of living and longer, healthier lives.

A thicket of current federal and state laws and regulations (including Superfund, Proposition 65 in California, and Environmental Protection Agency and Food and Drug Administration regulation of pesticides and food additives) assume a rodent is a little man. Such laws substantially disrupt our nation's economic productivity (including diminishing our food supply) by banning any chemical that at high doses causes cancer in animals. This hasty practice poses a threat not only to our quality of life but also to our very lives and health.

Perhaps you remember some specific examples of government's attempts to ban useful chemicals (like the sweeteners cyclamate and saccharin) because at high dose they cause cancer in rats. Probably you recall the great Alar-apple panic of 1989 when actress-turned-toxicologist Meryl Streep and an activist environmental group (with the EPA's blessing) told us apples presented an "intolerable risk" of cancer in children because they were treated with Alar, which at high doses caused cancer in rodents. More recently, you may remember self-appointed consumer groups argued french fries were a cancer risk because frying high-starch foods produces a chemical called acrylamide, another rodent carcinogen.

But what you might not know is that the rodent-is-a-little-man premise now has spawned unprecedented increases in environmental regulation (purportedly to protect us from cancer) and has contributed substantially to the cost of most goods and services, insurance premiums, legal fees and federal taxes while reducing job opportunities and incentives for innovation. All this without offering any known public health benefit whatsoever.

For example, the so-called Delaney Clause, passed by Congress in 1958, requires the FDA to ban food additives causing cancer at any dose in any lab animal no matter how negligible the risk or what benefits might be lost. The EPA labels useful industrial and agricultural chemicals as "probable human carcinogens" -- subjecting them to regulatory extinction -- on the basis of just one high-dose rodent study. The result: safe and useful pesticides are being banned, depriving farmers of tools to keep our food supply plentiful. Similarly, environmental activists have long pushed to ban chlorine, a critical treatment to ensure water safety, because it is a rodent carcinogen.

What I call "mouse terrorism," the use of high-dose animal tests to justify the banning of industrial chemicals, rests on false premises:

--"To reduce cancer risk we must get rid of all cancer-causing chemicals." This is impossible. Animal carcinogens abound both in nature and man-made products. If we were to apply Delaney Clause standards to natural foods, we would have nothing left to eat.

--"No amount of carcinogens are safe." Not so. It is the dose that makes the poison. Trace levels of natural carcinogens don't harm us, nor does exposure to minuscule amounts of synthetic chemicals parts per trillion of pesticide residues in food. Sunlight causes cancer, but not at moderate exposures.

--"But you can't reject animal cancer testing. Otherwise, we will just have to wait until cancer occurs in humans." No one is suggesting we abandon animal tests just knee-jerk interpretations of them. We should evaluate the cancer-causing potential of man-made chemicals, such as pesticides, the way we do naturally occurring chemicals. If a chemical causes cancer in several animal species and has an effect at low and moderate doses as well as high doses, we should be prudent and set tolerance levels of exposure to that chemical as the government does in wheat and corn for the naturally occurring carcinogen aflatoxin, which causes cancer in a full spectrum of animals. This common-sense approach is vastly different from the harsh regulatory approach taken with synthetic chemicals.

--"If we don't ban chemicals that cause cancer in animals, cancer rates will increase." Actually, just the opposite is true. Public health specialists are becoming increasingly outspoken in arguing that animal cancer tests are ineffective in predicting human cancer risk. Indeed, rat experiments do not even reliably predict cancer risk in mice much less humans.

Let's end rodent terrorism before it further devastates our economy and way of life.

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