



AVAC Statement in Response to the article *Vaccine Failure Is Setback in AIDS Fight* in the *Washington Post*

March 21, 2008

Today's article in the *Washington Post* ([Vaccine Failure Is Setback in AIDS Fight](#) by David Brown) correctly describes the recent HIV vaccine trial results as a setback in the global response to the AIDS epidemic. But it ignores much of what history has to teach us about how vaccines and new medications are discovered, and makes a grave error in logic when it equates the failure of a single candidate, MRK-Ad5, with failure in the AIDS vaccine field.

In the article, Robert Gallo's comparison of the Merck AIDS vaccine failure with the Challenger disaster is a dangerous overstatement. The STEP and Phambili results are a disappointment, not a disaster. The global AIDS pandemic is the disaster. The challenge of introducing a partially-effective vaccine is one the world would be lucky to have: we need more HIV prevention options—and as the search continues, we need more informed dialogue and less incendiary reporting which ignores what history, and this terrible epidemic, have to tell us.

Much of what the article describes is not news. The results from the trials of Merck's AIDS vaccine have been available for several months. The failure of the candidate to protect was a tremendous setback to the field. The apparent trend towards increased susceptibility to HIV among vaccine recipients is a source of grief, consternation and utmost concern.

But these events are not the crisis of epic proportions that the article expresses. Vaccine candidates fail. Drug candidates fail. The vast majority of experimental compounds fail before they reach efficacy trials. And many candidates, including MRK-Ad5, fail in efficacy trials.

Historically, it has taken decades – with more setbacks than advances – from the discovery of a virus or bacteria until an effective vaccine is licensed. Typhoid was discovered in 1884, but there was no vaccine until 1989. The measles vaccine took 42 years to develop. Malaria, discovered in 1893, still has no vaccine.

The simplest version of the MRK-Ad5 story is this: A candidate which the AIDS vaccine field had hoped would provide some evidence of protection did not. The STEP trial also yielded an unforeseen and deeply troubling suggestion of vaccine-related enhancement of HIV risk in some volunteers. (Brown implies that there may be hints of this effect in the companion Phambili trial which is, based on current data, an incorrect and potentially inflammatory analysis.)

The article makes the point, with which AVAC agrees, that the results of these trials should trigger renewed and aggressive analysis and strategizing in the field. The main question is: What are the experiments and trials that need to happen next to help guide the development of future candidates and to understand, as much as possible, the results of the STEP study?

This has already started happening, and will continue in the coming weeks and months. Next Tuesday's "Vaccine Summit" at the National Institutes of Health will provide another important opportunity to explore and redefine the US government's priorities for AIDS-vaccine related spending in light of recent events.

The article alludes to some of the scientific issues surrounding animal challenge experiments, which test candidate vaccines in monkeys prior to advancing them to human trials. Here, too, there is important work to be done. This warrants more detailed discussion and consideration of the extensive bodies of data from multiple scientists working on this issue around the world.

Animal trials are an important part of the vaccine development process. Ultimate success depends on strong work in basic science, animal studies and human clinical trials, and, more importantly, on efforts to ensure that each of these areas is informed by the other.

Scientific research is inherently uncertain, and the reality is that for every successful scientific discovery, there are hundreds of endeavors that fail. Moving forward, we must expect more research setbacks and prepare to learn from them. Millions of lives – today and tomorrow – depend on it.

Founded in 1995, the independent, non-profit AIDS Vaccine Advocacy Coalition (AVAC) seeks to create a favorable policy and social environment for accelerated ethical research and eventual global delivery of AIDS vaccines and other prevention options as part of a comprehensive response to the pandemic.

For more information about AIDS vaccine research, visit www.avac.org, and for more information about the STEP and Phambili trials, visit <http://avac.org/step.htm>.

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