APHIS Rules

To the editor:

Thank you for providing an opportunity to respond to the published response to our article (Huttner et al, *Bio/Technology* Vol. **10**: 967) by Wrubel and Krimsky in the November 1992 issue of *Bio/Technology*.

We agree with Wrubel and Krimsky and with Roger Salquist that USDA-APHIS regulations seem not to have limited development of any crop biotechnology products. We also agree that government oversight is necessary before new products are broadly introduced into the marketplace.

Our article focused on small-scale experimental research. We believe that the APHIS approach has created disincentives for scientists conducting basic research. These scientists have an interest in studying the influence of the environment on recombinant DNA modified plants or simply want to produce increased amounts of material for analysis. Moreover, while we agree that APHIS' environmental assessments do not address all relevant aspects of potential environmental impacts, we believe that the best way to assure that the academic community will explore those problems is to reduce governmental paperwork and delays.

Research on potential environmental impacts undoubtedly will be stimulated if APHIS is allowed to implement its proposal [FR *57*(216): 53036-53043] to utilize Institutional Biosafety Committees to evaluate field research proposals. These committees have an excellent record of ensuring safe biomedical research. They have full authority to draw upon appropriate local expertise in evaluating risks associated with plant field research.

"Another advantage of genetic engineering: viruses you can see!"

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AIDS Vaccines

To the editor:

I wish to provide evidence in support of two comments made in Stephen Edgington's article "Is an AIDS Vaccine Possible?" (*Bio/Technology* **10**: 768). The first is a quote from Stephan Berman: "The diversity of the virus is proportional to its time in the population." While it has been reported that there are five families of HIV world-wide, the virus is diverse in the U.S.— the MN strain dominates 60-70 percent of those tested, but no individual strain accounts for more than 5 percent of the remainder, Berman says. "Presently vaccine-makers blame this high viral mutation rate for the failure to produce a traditional vaccine," adds Edgington.

The second quote is in a box ("What's Wrong With AIDS Research?") and is as follows: "If anyone dares voice a minority view, it is often shouted down. As a result, new concepts in AIDS research originating from less well-known investigators gain acceptance more slowly than in other scientific areas."

All very interesting, in view of the fact that five years ago this month we submitted two very short papers, one to *Nature* ("AIDS, Latency and Error Rates in RNA"), and one to *New Scientist* ("AIDS — An Error Catastophe"), the latter as a direct response to an article in *New Scientist* by Christopher Boyce. Neither article was published, although many of the concepts we suggested in these articles have since been rediscovered (most notably in a long article in *Science* by a group from Oxford University). The notion of error catastrophe (as in some models of aging) still appears to be novel in the context of HIV research, however.

Will our views be "shouted down" again now, as suggested in Edgington's article in your journal?

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Second-Messenger Pathways

To the editor:

I very much enjoyed reading your article "Receptor Screening and the Search for New Pharmaceuticals" (*Bio/Technology* **10**: 973). Your article was certainly one of the most comprehensive on the subject I have seen.

For your possible information I am enclosing a reprint from a recent paper published in Science by colleagues of mine at Molecular Devices Corporation (MDC) in Menlo Park, California. This article describes an instrument, called the Cytosensor, that is now on sale by MDC.

I am writing to you because I believe this instrument offers a number of advantages over the several techniques you described in your article. We have now shown that this instrument can detect the specific responses of 10^4--10^5 cells to a wide variety of receptor ligands— neurotransmitters, growth factors, cytokines, etc., no matter what the second messenger pathway.

This is a significant advantage , for if truth be told, second messenger pathways are not fully understood. The instrument holds special promise for the discovery of ligands of orphan receptors, since cells with transient transfections can be employed.

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