

certainly not with technical carelessness.

Incidentally, the weakness of the argument is exposed by the author himself. Publishing twice (1) pictures of purchased ammonoids as evidence, he stated without qualifications that they are "from the vicinity of Erfoud, Morocco." Thus, while I trusted the information coming from another scientist, Talent appears to have trusted the information coming from his shopkeeper—hardly a more cautious "approach to the primary facts."

To sum up, whistle-blowing seems to be in our days an urgent necessity. Whistle-blowing should, however, refrain from overzealous exaggerations that could easily harm the reputation of marginally involved, but basically innocent, persons.

HEINRICH K. ERBEN  
Department of Paleontology,  
Bonn University,  
Nussallee 8, D-5300 Bonn 1,  
Federal Republic of Germany

#### REFERENCES

1. J. A. Talent *et al.*, *Courier Forschungsinst. Senckenberg* 106, 1 (1988); J. A. Talent, *Nature* 338, 613 (1989).
2. V. J. Gupta and H. K. Erben, *Paläont. Zeitschr.* 57, 93 (1983).
3. K. S. Jayaraman, *Nature* 338, 694 (1989).

#### O'Toole's Charges

Margot O'Toole (Letters, 16 June, p. 1243) states that her charges against the paper by D. Weaver *et al.* (1) have not changed since the inception of the controversy over that paper. However, 3 years ago in a memorandum she wrote to me setting out her original charges, she took issue only with what she saw as "serious weaknesses" in the data presented in the paper and in their interpretation. In that paper, the authors attributed the high frequency of the idiotype-positive hybridomas derived from their transgenic mice to idiotype-positive immunoglobulins encoded by endogenous genes rather than by the transgene. O'Toole, on the other hand, appeared to believe "that the observed phenomena are best explained" by three other considerations: (i) an overlooked low-level expression of the transgene in many hybridomas from these mice; (ii) a high frequency of the idiotype-positive hybridomas from normal mice of the same strain; and (iii) heterodimer formation, involving disparate classes of immunoglobulin heavy chains, one from the transgene and the other from an endogenous gene.

In evaluating the dispute I examined the data in the published paper and discussed

them extensively with various colleagues. Yet O'Toole says in her letter that I "did not even look at data." It may be that this statement was made because I did not examine laboratory notebooks and O'Toole wishes to convey the impression that it is only through examination of data in the form of raw notebook entries that disagreements, like those in her original memorandum, can be evaluated. But the review of unedited laboratory notebooks is an enormous undertaking with major disruptive effects on the research activities of the laboratories under review. Though opinion may vary over when this drastic process should be applied, it seems reasonable to reserve it for situations where the charges made, such as fraud, are correspondingly drastic. Yet fraud was not suggested in O'Toole's original memorandum, and in response to direct questioning she emphatically denied making such a charge.

Although in the beginning O'Toole focused entirely on disagreements with the authors' interpretations of what she regarded as weaknesses in their data, she has recently adopted the position that there were no data at all to support some of the published results, for example, that certain hybridomas had not been "subcloned."



## Announcing the launch of a stronger

If you're thinking, "It's impossible to fold nitrocellulose into a paper airplane," you're right. But not completely.

You see, the airplane pictured above is made of new BAS nitrocellulose – 100% S&S NC™ reinforced for strength and flexibility.

But if you're thinking, "Reinforced membranes are nothing new," you're also right. Except for BAS NC.

That's because BAS nitrocellulose is the only one made

using 100% S&S NC. No other nitrocellulose membrane – reinforced or otherwise – is as pure, or binds as well.

And here's proof. The photos on the right show that BAS NC binds better because its support material doesn't interfere with your sample.

Then again, if you're thinking, "Nylon membranes are strong, too," you're still right.

But with BAS NC you get all of the strength of nylon

To state, as she now does, that her charges have not changed from the beginning is clearly incorrect. In referring to O'Toole's shifting charges as a "moving target," Barbara J. Culliton's report (News & Comment, 19 May, p.765) got it just right.

HERMAN N. EISEN  
Center for Cancer Research,  
Massachusetts Institute of Technology,  
77 Massachusetts Avenue,  
Cambridge, MA 02139

#### REFERENCES

1. D. Weaver *et al.*, *Cell* **45**, 247 (1986).

#### Caldera Unrest

Richard A. Kerr's article "Good news for volcano watchers" (Research News, 21 July, p. 255) calls welcome attention to our recently completed review of unrest at large calderas of the world (1). However, several of our conclusions are quite different from those noted. (i) The statement that "something is stirring beneath Mammoth Mountain, California, and hardly anyone seems to care" does not apply to the U.S. Geological Survey, or to our colleagues in the state of

California, or to the officials and residents of the area with whom we work. Those who are responsible for monitoring Mammoth Mountain and the Long Valley caldera continue their careful surveillance, and we continue to look for lessons from elsewhere that might apply to Long Valley. (ii) Although we concluded that caldera unrest is common, has many origins, and frequently ends without eruption, we also stated that "The outcome of a specific episode of unrest cannot and should not be forecast solely on the basis of patterns of unrest at other calderas. . . ." The current swarm of small earthquakes beneath Mammoth Mountain, which postdates our review, reminds us that the final outcome of unrest at Long Valley is still uncertain. (iii) Lessons from history are different from those of geology, to be sure, but they are not contradictory, as Kerr implies. Geology records eruptions and a few long-lasting noneruptive processes, while contemporary monitoring records day-to-day and year-to-year, mostly noneruptive processes. History is a bridge between geology and monitoring, offering complementary lessons.

We hope our review will be a useful reference for scientists and citizens around the world who are faced with similar unrest

and that it tells the people of Mammoth Lakes that they are not alone. But we also hope that it will not be mistaken as reason to relax during such unrest. If anything, the knowledge that caldera unrest can have many origins and many outcomes makes the task of dealing with such unrest harder, not easier, for scientists, officials, and residents alike.

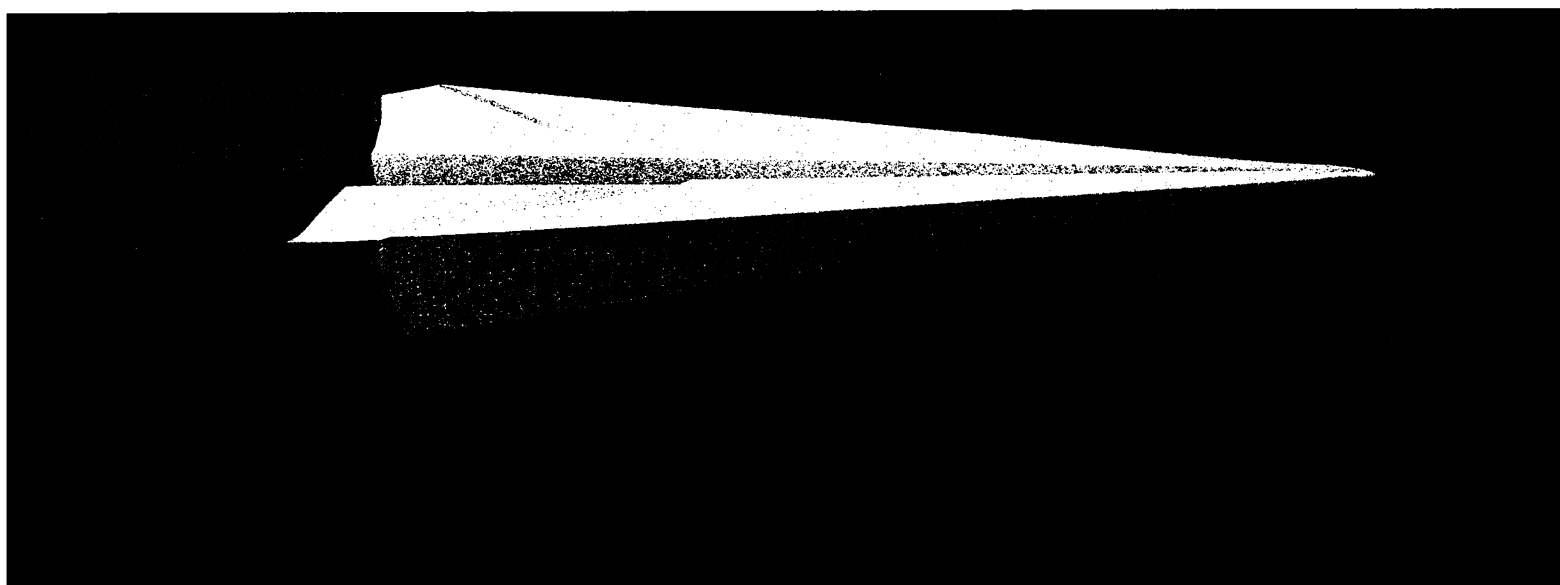
C. G. NEWHALL  
U.S. Geological Survey,  
Reston, VA 22092  
D. DZURISIN  
U.S. Geological Survey,  
Vancouver, WA 98661

#### REFERENCES

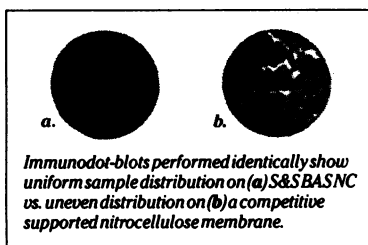
1. C. G. Newhall and D. Dzurisin, *Historical Unrest at Large Calderas of the World* (U.S. Geological Survey Bulletin 1855, Government Printing Office, Washington, DC, 1988).

*Erratum:* The caption of the photograph accompanying the article by David Dickson "Fetal tissue transplants win U.K. approval" (News & Comment, 4 Aug., p. 464) should have read, "Human fetal pancreas cells transplanted into mouse tissue will produce insulin."

*Erratum:* In Eliot Marshall's News & Comment article "Fallout from Pacific reaches Congress" (14 July, p. 123), Rongelap Atoll is described as "three-tenths of a square mile of sand and coconut palms." The atoll actually contains about 4 square miles of land surfaces. In addition, the lagoon encompassed by the atoll covers approximately 350 square miles.



## nitrocellulose membrane. BAS<sup>TM</sup> NC.



without nylon's high background.

So now, hopefully, you're thinking, "How can I get some?" Write to the address below or call 1-800-245-4024 in the U.S.

Of course, unlike the

membrane you see here, we probably won't be shipping yours via airmail.

Schleicher & Schuell, Inc., Keene, NH 03431 • Schleicher & Schuell GmbH, D-3354, Dassel, West Germany

**Schleicher & Schuell**  
**Talk To Us.**

Circle No. 151 on Readers' Service Card