

til June 2001, TIGR's Timothy Read plans to start microarray studies in July to identify target proteins. Les Baille, a microbiologist with the Defense Evaluation and Research Agency in Porton Down, Salisbury, United Kingdom, is eagerly awaiting the results, which he says will enable anthrax researchers to avoid laborious screening and focus directly on likely vaccine candidates. These data should be valuable, too, for researchers studying *Bacillus anthracis*'s close cousins, one of which causes food poisoning and the other of which is used to control insect infestations of crops. Says Read with obvious delight: "The sheer number of ways you can use genome data is amazing."

—ELIZABETH PENNISI

## CONFLICT OF INTEREST

### NEJM Admits Breaking Its Own Tough Rules

*The New England Journal of Medicine* (NEJM), which prides itself on having the toughest conflict-of-interest guidelines for authors in scientific publishing, has been forced to admit that it has been regularly breaching those standards. Whereas some researchers say that the missteps show that such strict standards are impractical, the journal's editors see them as a spur to do better.

The problem came to light last fall when the *Los Angeles Times* published two articles documenting instances in which NEJM review authors had financial links to drug companies that sold products they were writing about. The NEJM did its own review and came up with 19 rule-breaking articles covering treatments for diseases such as multiple sclerosis, breast cancer, and diabetes. In a terse apology in the 24 February issue, the editors list these as cases "in which one or more authors ... received major research support ... from relevant companies or served as consultants at the time they were invited to prepare their articles."

NEJM Editor Marcia Angell says that the mistakes were due to "poor communication and poor coordination" among editors. That's no surprise, she says, given that NEJM is charting new territory: "We are attempting to maintain a conflict-of-interest policy that no one else even bothers to try."

The journal makes public any information on the corporate ties of authors of research papers, and it essentially forbids writers of reviews and editorials from having any industry connections. The problem, says Angell, is that for reviews there was "a discrepancy between policy and practice. ... We permitted major [industry] research sup-

port to researchers if that support was given to the institution" rather than to the individual. That exemption was proposed by the editor of the drug therapy reviews, Alastair J. J. Wood of Vanderbilt University in Nashville, Tennessee, and the editors at the journal's Boston headquarters accepted it.

Through this generous loophole were admitted almost half of some 40 drug-therapy review articles published since 1997. Vera Price, a dermatologist at the University of California, San Francisco (UCSF), who published an article on hair-loss treatments, told editors, for example, that she had received research funds and consulting fees from a company that sells such treatments. But because the research money had gone to UCSF first, she was asked to sign a statement saying she had "no current, recent past, or planned future financial associations ... with a company that stands to gain" from products discussed in the article. Angell says the NEJM basic policy will remain unchanged, and no exceptions will be made for institutional funding. Authors will also be asked to submit a detailed accounting of all funding sources.

Some observers believe that NEJM's policy is unrealistic. "It's almost impossible to find a very informed commentator on a medical topic who hasn't had money from the pharmaceutical industry,"

says Tony Delamothe, deputy editor of the *British Medical Journal*. The BMJ doesn't ban anyone on the basis of their funding sources, he says, but requires that all such information be divulged to readers.

But Wood and Angell think that their 10-year-old policy is the best. "To say 'caveat emptor' is not helpful to readers," says Angell. Other journals are not as conscientious on that issue, adds Wood: "We frequently see articles that we've previously rejected for conflict of interest popping up in other prestigious journals."

—CONSTANCE HOLDEN

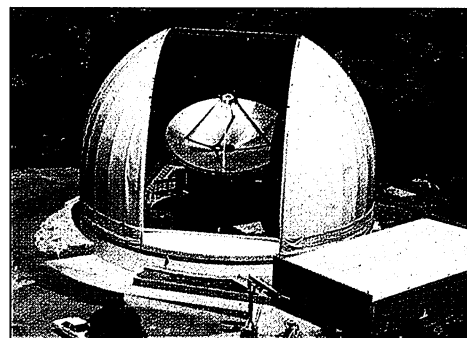
## RADIO ASTRONOMY

### Budget Pressures Force Closing of Kitt Peak Dish

**TUCSON, ARIZONA**—Like a homeowner with limited storage space, the National Radio Astronomy Observatory (NRAO) is discarding a cherished possession to make room for a big new acquisition. But some scientists say the observatory is acting in haste, before it has worked out the financing for its new purchase and years before delivery.

Last week NRAO officials announced that they would shutter a pioneering millimeter-wavelength telescope on Kitt

Peak in southern Arizona on 1 July, laying off half the 25-member staff. The observatory is building one of two prototypes for a proposed array of 64 dish antennas in the Chilean desert, a joint project with the European Southern Observatory that could cost each partner an estimated \$200 million. But that project, called the Atacama Large Mil-



**No openings.** The 12-meter millimeter telescope at Kitt Peak will be shut down on 1 July.

limeter Array (ALMA), hasn't received any construction funds and won't come online for several years, creating a gap that many U.S. radio astronomers say will put a serious crimp in the field. "Young researchers are going to get tired of waiting for research time and go off and get grants to do something else," warns Tom Bania, a professor of astronomy at Boston University. "It doesn't make much sense [to close Kitt Peak] when you're making a big commitment to the field with ALMA."

A flat budget is forcing NRAO's hand, says director Paul Vanden Bout. The observatory would receive \$32.5 million in the 2001 budget request from the National Science Foundation (NSF), unchanged from the current year (*Science*, 11 February, p. 952). "We had once hoped to keep the 12-meter [dish] going until ALMA began interim operations, probably in 2005, but that hope began to fade last year," Vanden Bout says. A final decision to shut the telescope was made "in the last few weeks," he adds, and that suddenness "may have shorted discussion a little."

Indeed, the abrupt closure has disturbed many researchers. The Arizona dish, which opened in 1967, pioneered exploration of the molecular composition of the interstellar medium at millimeter wavelengths. Later, it proved ideal for studying molecular clouds, star formation, and distant galaxies, as well as the atmosphere of Mars and Venus. Used by 150 investigators a year, it is also the only U.S. millimeter-wavelength telescope run full-time as a national facility and open to all astronomers.

For that reason, Lucy Ziurys, an astrochemist at the University of Arizona in Tucson, frets that closing the telescope will

