homes. "We realized that it must have to do with a home environment problem," Dearborn recalls, "because if we sent the infants home again, they restarted bleeding."

It turned out that all the houses with sick babies had recent water damage. After sampling these homes and several control houses in the same area, the investigators concluded that the likely culprit was *Stachybotrys chartarum* and other toxic molds that thrive in damp buildings and can under certain conditions produce spores containing a nasty cocktail of toxic chemicals. Although the investigators cautioned that more research was needed to prove the case, their findings precipitated a frenzy of activity. Public health guidelines were issued, contaminated buildings were evacuated and closed, multimillion-dollar lawsuits ensued—and the media jumped on the bandwagon.

But many in the scientific community felt that some questions remained unresolved. So in November 1997, then–CDC director David Satcher asked an internal working group and a panel of outside experts to review the Cleveland investigation. The groups delivered their reports last June and December, respectively, and the CDC published a synopsis in the 10 March issue of the *Morbidity and Mortality Weekly Report* (*MMWR*) (www.cdc.gov/epo/mmwr/preview/mmwrhtml/mm4909a3.htm).

Both panels spotted several flaws in the Cleveland study. For example, investigators collected twice as many samples in sick infants' homes as in control homes, and did so much more rigorously, the report states. "It's no surprise if you find more fungi in case homes this way," says Brian Shelton, a microbiologist at Pathcon, a private laboratory that specializes in building and environmental health assessments.

There was also no clear-cut clinical definition of the so-called idiopathic pulmonary hemorrhage. "The mere presence of blood, it seems, was enough to include infants as cases," says expert panel member Alan Cohen of Georgia Pediatric Pulmonology Associates, an Atlanta-based private association of pulmonologists. "But how can you define a common cause if you don't even have a defined disease?" And a statistical reanalysis of the original data indicated that the results might have been skewed by the finding of "extremely high, outlying values" for *S. chartarum* contamination of one home. This "magnified the risk about fivefold," says Daniel Sudakin, a medical toxicologist at the Veterans Administration Medical Center in Portland, Oregon.

These and additional minor problems, taken together with other evidence from the literature, led the panels to conclude that *S. chartarum*'s role in pulmonary hemorrhage was not proven. "That doesn't mean that *S. chartarum* is dismissed as a possible cause, but right now we just don't know what killed the Cleveland babies," says Cohen.

Dearborn acknowledges that because their study was designed rapidly, "it can't be perfect." But, he says, the "minor deficiencies are not enough to invalidate our conclusions." As support, Dearborn cites the fact that the number of infants with pulmonary hemorrhage has gone down recently in Cleveland—a change he attributes to public health officials inspecting homes for water damage and mold, and then having any contamination cleaned up.

Both sides do agree on one thing: Further studies are needed. "We could be missing something that is right in front of us because we think we already have the answer," Cohen says. And despite his disagreement with the *MMWR* report, Dearborn is happy the CDC is again studying the topic. "While we have continued our research efforts, the CDC stopped surveying and looking at pulmonary hemorrhage a few years ago. Now they're willing to do follow-up studies—that's great," he says.

–MICHAEL HAGMANN

U.S.–INDIA COOPERATION

## Pruned Sanctions List Points to Closer Ties

For 2 years, a $500,000 scintillation counter built by Indian scientists has been sitting unused at the Fermi National Accelerator Laboratory (Fermilab) in Batavia, Illinois. The reason: U.S. sanctions, imposed after India's latest nuclear weapons tests, have prevented the team that built the device from coming to the United States to test and install it. But last week, in a development seen as a harbinger of greater cooperation between the two countries, three Indian scientists finally arrived at Fermilab to work on the equipment.

**Reunited.** Tata's Naba Mondal, front, works with Fermilab's Tom Diehl on the D0 detector.

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After India's May 1998 tests, the U.S. government prohibited interactions between U.S. researchers and scientists at some 200 Indian institutions deemed to be part of the country's nuclear weapons and missile establishment. But on 18 March—the day before President Clinton visited India, where he declared that the bilateral relationship "was too important to ever fall into disrepair again"—the government formally removed 50 institutes from this so-called "entities list." Among them was the Tata Institute for Fundamental Research in Mumbai, which built the scintillation counter. Just 3 weeks later, three researchers from the institute arrived at Fermilab to work on the device, which is part of a massive detector called D0 (D-Zero), for Fermilab's Tevatron accelerator. Seven other Tata researchers are expected to follow in the next 6 months.

The easing of sanctions is part of a broader U.S. attempt to find areas of cooperation despite India's refusal to sign the Comprehensive Test Ban Treaty and abide by U.S. rules aimed at preventing the spread of missile and other "dual use" technologies, say U.S. officials. "It's a dual message," says one State Department official. "We acknowledge that there are differences [between the United States and India], but we say that it's time to move forward."

Indian science officials welcome the move, but say they are disappointed that an all-day "roundtable" meeting during Clinton's visit didn't open up more civilian research to joint activities. "Cooperation would be furthered if the roundtable had come up with a better and more constructive definition of dual use," says Kota Narayanan, director of the Aeronautical Development Establishment, a defense institute that remains on the banned list. "Given the imagination, anything can be classified as dual use."

For physicist Naba Mondal, the first of the Tata team to arrive at Fermilab last week, the easing of the sanctions on Tata researchers came none too soon. "It's a relief to participate again," says Mondal, who last worked at Fermilab in early 1998. His Fermilab colleagues say they are glad to have him. "We have enough other problems to solve, so it's great to have them here to work on their instruments," says Harry Weerts, a physicist at Michigan State University in East Lansing and a spokesperson for the D0 team. The detector is scheduled to be up and running in March 2001, 9 months behind schedule but still in time for the Tevatron's next set of experiments.

–JEFFREY MERVIS

With reporting by Pallava Bagla in Hyderabad.