searchers as participants. But Steneck and others say that it's hard to measure the effectiveness of such training, and that the meager results to date are disheartening.

A study of 172 University of Texas students enrolled in a "responsible conduct of research" course, for example, found "no significant change" in attitudes after training, says Elizabeth Heitman of the University of Texas School of Public Health in Houston. The finding is consistent with what Steneck has seen, including a 1996 study that found that people who had gone through a training course were actually more willing to grant "honorary authorship" to colleagues who had not performed research than were those who had not been trained.

ORI director Chris Pascal says his office has received several favorable comments about the new grants program and that 70 scientists interested in the topic showed up last month for an ORI workshop on how to apply for biomedical research grants. The first round of winners will be announced next year. **–ELIOT MARSHALL**

CLIMATE POLICY

Too Little, Too Late, at The Climate Talks

Under pressure from too many complex issues, too many divergent views, and too little time to forge consensus, international negotiations aimed at reducing greenhouse gas emissions collapsed last week. The most obvious bone of contention was whether the United States, the world's biggest source of humanmade greenhouse gases, should be allowed to meet much of its obligation without actually cutting its own emissions. The United States softened its controversial stance in the final hours, but European negotiators found even the scaled-back U.S. position unacceptable. Although the negotiators headed for home with nothing tangible to show for their efforts, they say the rule-setting process is not over, just suspended.

Filling in the details of the Kyoto Protocol crafted by governments in 1997 was obviously going to be tough (*Science*, 3 November, p. 920). "The fundamental problem is that you have several intersecting issues and a complicated set of coalitions," says economist Henry Jacoby of the Massachusetts Institute of Technology. The mix becomes even more daunting when you add in an agreement on targets for reducing greenhouse emissions in developed countries—an average 5% reduction of emissions below their 1990 level—that was reached before anyone established how those reductions could be made. The United States found itself in a particularly tight spot, facing the need for a two-thirds majority in the U.S. Senate to ratify the treaty and a hot economy that would require a 30% reduction in emissions over the next 10 years relative to business as usual.

A valiant effort. Dutch environment minister Jan Pronk, chair of the conference negotiating the climate treaty, lent a hand to protesters building a mock dike but was unable to build a consensus among negotiators.

To lessen the economic pain, the U.S. negotiators latched onto several "flexibility" opportunities allowed by the protocol. One is to let growing forests and soils soak up carbon dioxide emitted by burning fossil fuels. Initially, U.S. negotiators proposed that almost 310 million tons of carbon—about half of the U.S. reduction target—be accounted for by its forest and soil "sinks" (*Science*, 3 November, p. 922). Not fair, countered E.U. negotiators as well as observers from some environmental groups, claiming that such generous use of sinks amounted to "rewriting the Kyoto targets." Many of those same forests and soils were soaking up carbon dioxide in 1990, they pointed out, without any effort on the part of the United States government. The Europeans insisted that the United States must actually reduce its greenhouse emissions rather than rely largely on sinks or another Kyoto option involving trading credits for emission reductions made in other countries.

By the final hours—actually, during a last-minute extension of negotiations—the U.S. team agreed to let sinks account for just 50 million tons of its mandated 620-million-ton reduction. But by then, "there was a lack of time and a lack of trust," says Jennifer Morgan of the World Wildlife Fund in Washington, D.C. A compromise on sinks carefully crafted by the U.S. team and a small group of European negotiators was rejected by the full European contingent as time ran out.

In several other problem areas, progress was made but nothing settled. Left undecided, for instance, was the extent to which a country can buy emission-reduction credits from another country—such as Russia, where a sagging economy has resulted in large emission reductions since 1990. Nor did the negotiators agree on how compliance might be enforced. And it remains unclear how much help developing countries would get to cope with climate change. The protocol mandates that developed countries transfer money and technology to help these countries make the transition to cleaner energy production. But developing countries did not even have the opportunity to weigh in before the talks ended.

They may get another chance in a few months. In an unusual move, the parties to the protocol agreed to meet again, probably in Bonn in May, to take another stab at setting rules. "The parties aren't letting the protocol fail," says economist Michael Toman of Resources for the Future in Washington, D.C. "They're still far apart, but these things don't come easily." **–RICHARD A. KERR**

CHEMICAL TESTING

Sweden to Get Tough on Lingering Compounds

STOCKHOLM—For generations the Orrefors Kosta Boda glassworks has earned international acclaim for its fine leaded crystal art glass. But its handiwork may soon go the way of gasoline: lead-free. A Swedish government panel has called for banning from commerce any substance that persists in the

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