

## RESEARCH FUNDING

# UC Balks at Campus-Wide Ban on Tobacco Money for Research

Concerned about academic freedom, the University of California (UC) has delayed voting on a plan to impose a blanket ban on research funding from tobacco companies. If approved, the ban would make UC the only U.S. university to forbid tobacco dollars campus-wide. Faculty members anguished over the issue for 4 years before calling on UC's governing body—the regents—to take a stand. Instead, the regents

the grant do not violate university policy (for example, by excluding foreigners). As of last year, there were 19 active grants at UC supported by the tobacco industry, totaling \$15.8 million. (UC's total grants and contracts added up to \$4 billion that year.)

Before the regents would consider a tobacco-funding ban, however, they asked the senate for input. That's when things got complicated. "The tobacco issue put our principles in conflict," says senate member and UC Santa Cruz

social psychologist Faye Crosby. "Most of us agreed that academic freedom trumps all other principles." But then the senators reviewed documented evidence that the tobacco industry had manipulated researchers into publishing biased results—by tweaking manuscripts or threatening to cut off funding, Glantz charges. "We realized academic freedom can be illusory," says Crosby. For many, allowing the university to accept tobacco money was allowing a threat to academic freedom.

Enstrom disagrees. "I do not feel that any tobacco funding arrangements I've had have manipulated my academic freedom," he says. In 2003, Enstrom published a study in the *British Medical Journal* that found no relation between secondhand smoke and lung cancer deaths. The project was partially funded by the Center for Indoor Air Research, which itself is funded by tobacco companies. Enstrom says the study was methodologically sound and that it added an important minority opinion to the smoking debate. "Thankfully, UC doesn't allow only certain points of view to be funded," he says. "My entire career has been based on the academic freedom I've had."

The senate's recommendation to the regents reflected the divisiveness of the issue. On one hand, the faculty asserted that "grave issues of academic freedom would be raised" if the regents banned funding based solely on its source. On the other, they declared that academic freedom could be suppressed, and that the tobacco industry had a history of such suppression.

The seemingly contradictory wording proved too much for the regents. At an ▶



**Faculty fission.** Stanton Glantz (*left*) would like to see a blanket ban on tobacco funding at UC, but James Enstrom (*right*) says such a ban would violate academic freedom.

punted it back to the faculty last week.

"It's a very good decision," says James Enstrom, an epidemiologist at UC Los Angeles who uses Philip Morris money. "Academic freedom makes this a great university, and the faculty need time to consider this issue more thoroughly." But Stanton Glantz, a bio-engineer and antitobacco crusader at UC San Francisco, turns the argument around: "The tobacco industry funds research to confuse the public," he says. "This manipulation of the scientific process subverts academic freedom and is antithetical to the fundamental mission of the university."

Momentum for a UC-wide ban on tobacco funding has been building. Since 2003, seven units within the university system, including UC Berkeley's School of Public Health and the UC San Diego Cancer Center, have shut their doors to tobacco money. But UC's faculty-composed Academic Senate voided these bans in May 2005, declaring that only the regents had the authority to decline funding—and that they had to do it for the entire system or not at all.

Currently, UC researchers can take money from any source, as long as terms of

## Kansas Standards Evolve Again

Eighteen months after its state education board adopted science standards promoting the teaching of intelligent design (ID), Kansas is set to toss them out. Next month, a newly aligned board expects to adopt standards that emphasize evolution.

The change follows elections that flipped the board's 6–4 conservative majority to a 6–4 margin for moderates (*Science*, 11 August 2006, p. 743). As a result, the board replaced the former chair, ID proponent Steve Abrams, with Bill Wagnon, who has fought against the ID-tainted standards since their adoption in August 2005.

The pending standards have been written by a committee appointed by the board that delivered a product deemed unacceptable by conservatives. "We'll be glad to bring back standards that do not contain supernatural explanations and are in line with national and international norms," says Sue Gamble, a moderate board member. "These standards will help teachers to strengthen the teaching of evolutionary content."

—YUDHIJIT BHATTACHARJEE

## No Roving for Moon Rovers

Budget troubles at NASA will likely nix plans to send a series of sophisticated robotic rovers to the moon after the agency sends an orbiter there next year. NASA officials blame a tight exploration budget and the rising cost of the rovers, which were meant to find possible human landing sites and gather scientific data. Industry and agency sources say that up to half of the roughly \$800 million set aside over the next 3 years for rover development at Marshall Space Flight Center in Huntsville, Alabama, could go to Goddard Space Flight Center in Greenbelt, Maryland, and Ames Research Center in Mountain View, California, to design smaller and cheaper spacecraft that could do similar jobs.

The decision to cancel the original set of rovers comes just a few months after NASA chief Michael Griffin moved the program from Ames to Marshall. That decision, sources say, was made to please Congress's Republican-dominated Alabama delegation, but the recent election, which put Democrats in the driver's seat, took pressure off the agency. The remainder of the would-be rover funding would cover budget shortfalls in NASA's effort to develop a launcher to replace the space shuttle, slated for retirement in 2010. The proposed cuts are part of the agency's 2009 budget request to be announced on 5 February.

—ANDREW LAWLER

18 January meeting at UC San Francisco, the governing body appeared as divided as the senate. “I believe a yes vote [on this ban] would establish a very dangerous precedent which threatens our culture of academic freedom,” said Regent Jefferson Coombs at the meeting. “It would convey a signal that we do not trust our world-class faculty.” Regent Richard Blum countered

that “none of us take academic freedom lightly, ... but [accepting tobacco money] hurts academic freedom, not helps it.”

In the end, the regents voted overwhelmingly to send the issue back to the faculty. An amendment charges the senate to clarify whether a blanket tobacco funding ban truly threatens academic freedom before the regents meet again in May.

Michael Cummings, an authority on smoking issues who runs the Tobacco Control Program at the Roswell Park Cancer Institute in Buffalo, New York, says he’s disappointed with the delay. “It’s good to debate academic freedom,” he says, but “if you can’t choose on this, you can’t choose on anything.”

—DAVID GRIMM

## AVIAN INFLUENZA

# With Change in the Seasons, Bird Flu Returns

An upsurge in H5N1 bird flu outbreaks in poultry across Asia is driving home the message that even countries that have eliminated the virus once shouldn’t become complacent. The continuing high death toll in humans, including two recently detected cases of infection with a Tamiflu-resistant strain in Egypt, is also a grim reminder of how devastating the virus might be if it acquires the ability to spread easily among humans.

Over the past 3 weeks, Thailand and Vietnam reported their first H5N1 outbreaks among poultry in 6 months. Japan, which seemed to have dodged the bullet since its cluster of outbreaks in 2004, confirmed that the virus hit one farm on 11 January and probably a second farm on the 23rd. South Korea, which last November suffered its first outbreak since containing the virus in 2004, reported that the virus had turned up on a fifth poultry farm. Several wild birds found dead in Hong Kong tested positive for H5N1. And Indonesia on 20 January reported its fifth human death from the virus in just 10 days, bringing its death toll to 62, by far the most of any country.

The increase in outbreaks in the Northern Hemisphere follows what has become an established pattern. The reason for the seasonality is still not well understood, says Les Sims, a veterinarian based in Manunda, Australia, who advises the U.N.’s Food and Agriculture Organization (FAO). It is likely to be some complex interaction among several factors, including cooler temperatures enabling the virus to survive longer in the environment, greater poultry trade in preparation for winter festivals, and movements of wild birds.

The recurrence of the virus in South Korea and Japan is particularly notable. In both the winter of 2003–’04 and this year, outbreaks in South Korea were followed 4 to



**High alert.** Since H5N1 virus was detected in Japan this month, officials have been checking blood samples from poultry at neighboring farms.

6 weeks later by outbreaks in Japan. “The outbreaks in Japan and South Korea suggest to me free-flying birds as the most likely origin,” says Sims. Both countries are trying to determine how the virus was reintroduced.

“The reasons for these failures need to be examined and the lessons applied elsewhere,” says Sims. But overall, he says the speed of the response, particularly in Thailand and Vietnam, “is a positive sign and shows that the surveillance systems are working.”

In Indonesia, four of the five recent human deaths occurred in the Jakarta area. In response, the city government on 17 January ordered residents who keep backyard poultry to eat, sell, or cull their birds by the end of the month or have them confiscated and destroyed. The government is talking of gradually replacing the live markets that currently account for 80% of poultry sales in the city with slaughterhouses. “It would be a sea change culturally,” says John Weaver, senior adviser to FAO in Jakarta. If done properly, he says, eliminating backyard poultry could reduce the opportunity for the virus to survive in the environment. But he cautions against a sudden prohibition, which could lead smallholders to hide their fowl and refuse to cooperate with animal dis-

ease control efforts.

Early this week, meanwhile, experts were poring over the puzzling and potentially worrisome details of a recent cluster of human H5N1 cases in Egypt. Late December, a 16-year-old girl and her 27-year-old uncle, living in the same house in Gharbiya province, both died of H5N1 infection. Sequence information made public on GenBank on 23 January by the U.S. Naval Medical Research Unit 3 (NAMRU-3) in Cairo shows that both were infected with a virus strain that is moderately resistant to the antiviral drug Tamiflu.

Tamiflu resistance has been reported in a few other human H5N1 cases after patients were given the drug. However, the Egyptian samples showing resistance were taken just 2 days after Tamiflu treatment began, an unusually short period in which to develop resistance, says NAMRU-3 commanding officer Bruce Boynton. What’s more, the virus in both patients had a rare resistance-conferring mutation, called N294S, seen only in one previous H5N1 patient in Vietnam.

That’s why Boynton says the evidence suggests “a more disturbing” theory: that both were infected by a sick bird that already harbored the mutated virus. If more such birds exist, doctors may see more H5N1 patients who don’t respond well to Tamiflu. And if such a resistant strain were to spawn a pandemic, the world’s vast Tamiflu stockpiles might be less helpful.

Tests are currently under way to determine whether the patients had the resistant strain before they took the drug and whether virus from a third suspected H5N1 patient in the household, who also died, has the same mutation, Boynton says. Veterinary virologists are also checking to see whether the mutated virus can be found in birds in Egypt.

—DENNIS NORMILE AND MARTIN ENSERINK

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