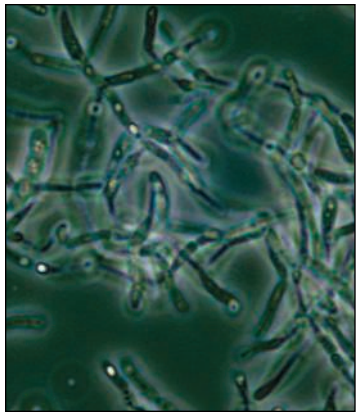
DATA SECURITY

# Report Upholds Public Access to Genetic Codes

The possibility of bioterrorism shouldn't stop scientists from freely sharing genome data, concludes a new report from the National Academies' National Research Council (NRC). The study, requested by the CIA and the National Science Foundation, says that limiting public access to genome data on potential bioweapons is impractical and would do more scientific harm than good.

The U.S. government typically requires all federally funded scientists to make their genome data public. Since scientists sequenced the first viral genome in 1975, they have released the genetic codes of more than 1100 viruses and 150 bacteria, including those of the dangerous pathogens that cause smallpox, anthrax, and the plague. In the wake of the October 2001 U.S. anthrax attacks, however, some analysts have proposed restricting access to such data to make sure it doesn't fall into the wrong hands. They worried that would-be bioterrorists might draw upon the growing mountain of gene sequence data in public databases to engineer new bioweapons, such as unusually infectious viruses or toxic bacteria that resist drugs.

But "open access is essential if we are to maintain the progress needed to stay ahead of those who would attempt to cause harm," says Stanley Falkow, a microbiologist at Stanford University in Palo Alto, California, who led the new study (www.nap.edu/catalog/11087.html). It is unlikely that raw sequence data would help bioterrorists develop superweapons, the NRC panel says, and locking away information would harm efforts to improve biodefenses and fight emerging diseases such as severe acute respiratory syndrome. Coming up with workable restrictions would be difficult, the panel adds. The genomes of many dangerous pathogens are already in the public domain, and there is little agreement on what kinds of information should be put off-limits. If the government needs to keep genomic secrets, it says, it should use its long-standing authority to classify information.



**Force for good.** Academy panel wants genomes of potential bioweapons such as anthrax to remain public.

The panel's approach sits well with several scientists concerned about biosecurity. "This is the right decision, from the standpoints of both public health and security," says Barbara Hatch Rosenberg, a bioweapons expert at the State University of New York's Purchase College. "Stringent restriction would pose unacceptable costs," agrees molecular biologist Richard Ebright of Rutgers University in New Brunswick, New Jersey. "There are no 'biohackers' using genome data in basements." –DAVID MALAKOFF

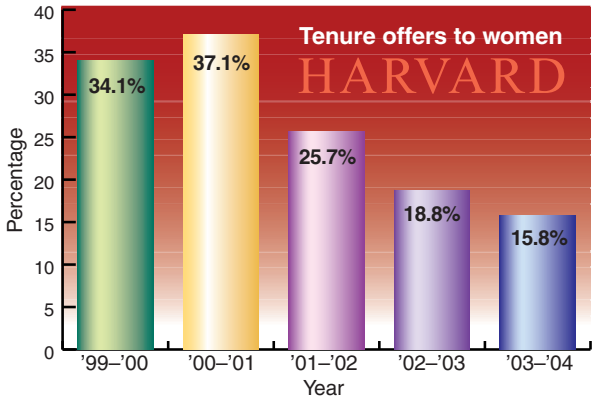
WOMEN IN SCIENCE

# Harvard Faculty Decry Widening Gender Gap

The percentage of women offered tenured slots in Harvard University's Faculty of Arts and Sciences (FAS) has shrunk by half in the past 5 years. In a letter sent this summer to President Lawrence Summers and obtained by *Science*, some two dozen women faculty members called the dramatic drop an unintended result of policies put in place since Summers took office in 2001. Summers, in turn, blames departmental search committees for not looking harder for strong women candidates. Both sides agree, however, that the issue is worth talking about and have scheduled a sit-down next month to figure out how Harvard can do better.

"The whole concern about increasing diversity on campus has been downgraded," says a senior faculty member who, like other signers who spoke to *Science*, requested anonymity. "We'd hate to go back to a 1980s world at Harvard in which only 7% of tenured FAS faculty are women."

Women are generally underrepresented among the faculty of major research universities, and the situation becomes more pronounced as they ascend the professorial ranks. In theory, Harvard is in a better position to correct a gender imbalance than most universities, because it rarely awards tenure to those already on campus. But the share of women offered those coveted slots has slumped from 37% of the total pool in 2000–01 to 16% in the academic year that just ended (see graph). That's below the overall faculty ratio of 19.6%, posing a threat to hard-won gains during the 1990s.




**Wrong direction.** Women faculty members say Harvard has taken a step back in providing opportunities for women.

On 18 June, 26 tenured faculty women laid out their concerns in a three-page letter to Summers and FAS Dean William Kirby. They cited several possible contributing factors, including the elimination of an affirmative action dean in 2001 and the university's emphasis on hiring "rising young stars," an age cohort that one of the signers says "corresponds to a woman's child-bearing years."

On 23 July, Summers and Kirby wrote back. The quest for younger faculty, said Summers, should actually narrow the gender gap, because "the pool of women available in most fields is larger in cohorts at an earlier career stage." Kirby explained that affirmative action is a priority for four new division deans—positions created since Summers arrived—and added that new hiring policies will ensure more "broad and thorough" searches.

Summers and the petitioners concur that the key to improving the situation lies with how department chairs choose to fill their tenured slots. But the signers say Summers needs to lean more heavily on those chairs. "Most members of the search committee are men," says one petitioner, "and they'll often bring in a token woman candidate after they've decided to hire somebody else."

The two sides will discuss the matter at a lunch on 6 October. "We're hopeful about change," says a signer, "because Larry is smart and very educable." –YUDHIJIT BHATTACHARJEE

CREDITS (TOP TO BOTTOM): CDC; SOURCE: HARVARD UNIVERSITY



Published by AAAS