an additional 200 square feet of lab space, Hopkins started measuring nearby labs with a tape measure and realized that, as a full professor, she had much less space than her male counterparts and also lacked the power to get what she needed. She set out to remedy the situation.

In 1995, Hopkins was appointed chair of the first Committee on Women Faculty in the School of Science at MIT. At the time, there were 194 male faculty in the school, compared with 17 female. An extensive investigation by the committee was released in 1999 and sparked a flurry of attention when it was published in the *Boston Globe* and the *New York Times*. The committee found that women faculty tended to leave after tenure because they felt they were not part of the system in the same way as their male colleagues. The women tended to work alone, were not part of group grants, and were not in administrative positions. Interestingly, half of the women were unmarried without children, while nearly all their male counterparts had families. The committee concluded that MIT was experiencing unintentional gender bias.

MIT responded by recruiting more women faculty, both to the university and to administrative positions. The university established gender equity committees chaired by senior female faculty to review salary data and interview the faculty. The president also established a Council on Faculty Diversity, which establishes institutional policies regarding such issues as hiring and family leave. Altogether, MIT created 11 committees to infiltrate the university structure. As a result, and in only 6 years, the number of women science faculty has nearly doubled, while the number of women faculty in engineering has undergone an almost 5-fold increase. MIT has become a model for recognizing, acknowledging, and rectifying gender bias.

On March 25, 2005, Hopkins gave her first talk since the now-infamous Summers comment. Hopkins said she felt "like we turned the clock back 40 years" when Summers said that innate aptitude differences between men and women may be to blame for the dearth of women engineers, scientists, and mathematicians in advanced faculty positions. She said she "couldn't sit there and take it" and "that it was morally wrong to listen" to Summers's dismissal of the existence of gender discrimination after all the research that she and others had done. In reference to Rosalind Franklin, Hopkins joked, "If you discover the structure of DNA, you win the Nobel prize, right? Well, depends who you are."

Hopkins's response to Summers is timely in light of a study recently published in *Nature*, which examines the complete sequence of the X chromosome (1). A companion paper in the same issue (2) shows that the second X chromosome — found only in women and thought to be silent — actually expresses many genes. Interestingly, different women express different genes from this "silent" chromosome, and do so at different levels. The two papers explain why men and women are biologically different, and why women are different from each other. The papers do not, however, lend any credence to the concept that innate aptitude differences exist between the sexes.

1. Ross, M.T., et al. 2005. The DNA sequence of the human X chromosome. *Nature.* **434**:325–337.
2. Carrel, L., and Willard, H.F. 2005. X-inactivation profile reveals extensive variability in X-linked gene expression in females. *Nature.* **434**:400–404.

Stacie Bloom

PETA continues to claw at Columbia scientists

People for the Ethical Treatment of Animals (PETA) has been aggressively campaigning for animal rights since its inception in 1980, when its undercover investigation of a Maryland primate laboratory exposed numerous abuses. This investigation resulted in the first-ever conviction of animal researchers and the first US Supreme Court victory for laboratory animals. Today, with over 800,000 members, PETA is the world's largest animal rights support group. The group broadcasts its continuing struggle against laboratory animal abuse with very public, eye-catching, and provocative campaigns. One long-standing and dogged movement is directed against animal research at Columbia University.

According to the federal Animal Welfare Act, an estimated 23 million mammals, from rodents to primates, have been killed in laboratory studies. The targets of recent PETA condemnation are Columbia University professors Michel Ferin and Raymond Stark, and assistant professor E. Sander Connolly, who use such mammals in their experiments. Connolly studies brain damage resulting from strokes, and has been successful in elucidating new neuroprotective mechanisms and therapeutic strategies in mice and baboons.

Although Columbia University sanctioned Connolly's project in March 2000, PETA continues to release a firestorm of criticism and movement against the practice of clinical testing and against Columbia University in particular. PETA maintains a website dedicated entirely to the university (http://www.columbiacruelty.com), which reports offenses on the part of researchers and refers to Ferin, Stark, and Connolly as "Columbia's Death Squad." Unafraid to use words like "grotesque" and "horrifying," PETA juxtaposes films of alleged abuse with calls for action "to end the cruel and crude experiments, which have no practical value."

An in-house investigation into Connolly's experiments, spurred by a former Columbia University veterinarian and PETA informant, was ordered by the university in early 2003, and has thus far found no evidence of any significant violations of conduct. For now, Connolly himself has halted the studies until the formal investigation is complete. PETA, meanwhile, updates its Columbia-centric website with current developments and celebrity endorsements and urges support from the public. Of course, animal testing has not ceased, so research scientists and PETA continue to wrangle. While many researchers consider animal research to be necessary, PETA considers it murder.

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