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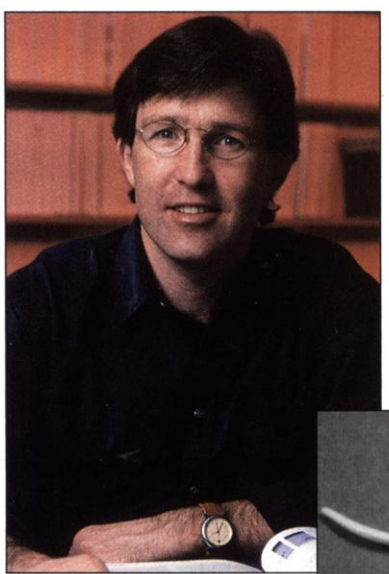
Species protection found wanting

INTELLECTUAL PROPERTY

DuPont Ups Ante on Use of Harvard's OncoMouse

The Harvard OncoMouse, a patented animal with a checkered past, is causing trouble in academia once again. E. I. du Pont de Nemours and Co. of Wilmington, Delaware, which controls rights to this genetically engineered rodent, has become more assertive about asking U.S. researchers to obtain licenses for permission to use it. The company—arguing that the OncoMouse patents cover any transgenic animal predisposed to cancer—is also asking institutions to enforce the agreements. Some have complied readily, according to DuPont, but others, including the Massachusetts Institute of Technology (MIT) and the University of California, appear to be dragging their feet. And a few researchers and administrators are up in arms.



Prime example. DuPont wants MIT to sign the Harvard OncoMouse patent license to cover work by Tyler Jacks and others.

DuPont regards the flap as a small misunderstanding, according to J. Gregory Townsend, associate director of DuPont's Intellectual Assets Business. "There's been some confusion," he says, because "people are not familiar with the exact terms" of a broad agreement the company worked out with the community a couple of years ago. In talks managed by the National Institutes of Health (NIH), DuPont agreed in 2000 to provide what Townsend calls a "free research license" to any NIH scientist or NIH grantee doing noncommercial studies with the mouse. Anyone who wants to use the animal in drug screening or other company-related projects must obtain a commercial license and pay a fee (www.nih.gov/news/pr/jan2000/od-19.htm).

Even though most academics can use the mouse for free, the deal still requires that each institution sign a contract and comply with the terms. They may share mice only with others who have a license from DuPont and must file an annual report with DuPont—requirements that upset some researchers. Under Townsend, who took charge of this portfolio last year, DuPont has become politely insistent; he says he is surprised to hear that anyone would regard a free license as "burdensome."

At the center of the flap is a mouse engineered to develop cancers that closely mimic human disease. Although transgenic animals are not widely used in connection with clinical research, they could become valuable for testing new therapies. The first to file property claims on the cancer-prone mouse was Philip Leder of Harvard Medical School in Boston and colleagues. Harvard received a series of three patents, the first in 1988 and the most recent in 1999; all have been licensed exclusively to DuPont. The most recent one covers toxicology and cancer therapy testing; it will remain in force for another 14 years.

A few scientists—such as Tyler Jacks, chief of MIT's Center for Cancer Research and a developer of research animals, and oncologist Kevin Shannon of the University of California, San Francisco—are concerned that DuPont's licensing campaign could bog down the testing of new therapies. Some have suggested ignoring or resisting the company's demands, arguing that the broad patent claims would not survive in court. But university administrators aren't eager to litigate.

MIT was pulled into the fray in "early March," says Karen Hersey, MIT's technology licensing chief, when "we received a letter saying … that we had not signed a licensing agreement." MIT responded that, "We didn't know" that we should have one. DuPont then provided the names of three individuals who were using the mice without a license. Jacks was one of them. When MIT notified these scientists that DuPont, in effect, was after them, the reaction was "hot," says Hersey.

Jacks, creator of a popular *p53* knockout mouse, is upset by the breadth and potential impact of DuPont's licensing demands. He has been exchanging mice freely with academic researchers and thought his laboratory was covered by the blanket agreement NIH and DuPont had worked out 2 years ago. Now, the company has begun pressuring his institution and others to take out licenses. In particular, Jacks "strongly objects" to DuPont's claim that "any animal with germ line disruptions that is cancer prone" must be licensed for research use under the OncoMouse patent. He's disappointed that institutions seem to "back down" to such broad patent claims.

Even more outspoken is Andrew Neighbour, associate vice chancellor for research at the University of California, Los Angeles. At a meeting of a cancer advisory panel at the Institute of Medicine in Washington, D.C., last month, Neighbour criticized the OncoMouse licensing campaign. DuPont's "nonnegotiable" terms, he said, will impede the use of cancer-prone mice in labs that are doing company-sponsored research or that are testing proprietary drugs. And the fee for a commercial OncoMouse license, Neighbour said, could be up to "two times the amount of the sponsored research contract"—creating an "economic burden [that] will restrict research."

Townsend denies that the company has done anything that might impede the use of genetically engineered mice. "We can turn around a license to an academic user in 2 days to a week," he says. Townsend notes that the mouse patents had been through several major legal trials already—including in Europe and Japan—suggesting that they would stand up to any new challenge in the United States. Most research institutions are

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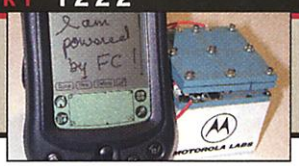
LEAD STORY 1222
Fuel cells for your laptop?



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New ways to beat drought

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working out agreements amicably, he reports, although he is still waiting to hear from MIT and California. He declined to comment on specific fees but stated firmly that "any commercial use" of the mouse "does require a license from DuPont."

–ELIOT MARSHALL

NSF REAUTHORIZATION

Community Hails Bill To Double Budget

Science lobbyists have spent the past 4 years trying to get equal treatment for the National Science Foundation (NSF). They have been urging Congress to do for NSF what it is doing for the National Institutes of Health: double its budget, now $4.8 billion, over 5 years. Last week, they achieved a symbolic victory when Representative Sherwood (Sherry) Boehlert (R–NY), chair of the House Committee on Science, introduced a bill (H.R. 4664) that aims to accomplish just that.

The bill faces a long and uncertain trip through the congressional labyrinth. But it includes a provision that could have a more immediate impact on the agency and perhaps even on the controversial practice of congressional earmarks. It requires NSF to rank proposed major new research facilities so that legislators will no longer feel free to pick and choose from among approved but unfunded projects, which circle expectantly like planes arriving at a crowded airport.

Boehlert, a self-professed "cheerleader" for NSF, has long resisted the doubling argument, scorning it as the product of "randomly generated numbers" (*Science*, 11 May 2001, p. 1048). Instead, he has urged the community to spell out exactly what is needed and how much it will cost. Last week, however, Boehlert joined ranks with his admiring constituency. Leading the biggest science pep rally in years, the chair declared that NSF needs annual increases of 15% for the next 5 years if it is to succeed in bolstering basic research and education. Asked why he had changed his mind, Boehlert said that "there's a certain appeal to having a lofty goal. ... I would have asked for a tripling [of NSF's budget], but I wanted to be realistic."

Out in force. Representative Sherry Boehlert, at podium, and other legislators are enveloped by science lobbyists at a press conference unveiling the NSF bill.

Even before Boehlert took to the microphone, scores of scientific societies papered the Capitol Hill venue with press releases praising him for his "leadership and vision" in calling for more federal dollars. NSF director Rita Colwell, although obliged by her position to support the president's request for a meager 5% boost next year, nevertheless calls the bill a "terrific show of bipartisan support by Congress."

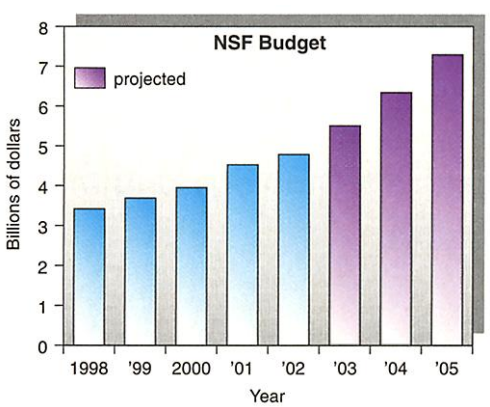
Despite the euphoria, congressional aides and lobbyists acknowledge that the bill is just a small step in a long legislative process. Although the House is likely to back the bill, no version has yet been introduced in the Senate. And even a full congressional endorsement won't generate a penny more for NSF unless another set of legislators, who sit on the appropriations committees that control NSF's purse strings, climb onboard.

The science committee can play a bigger role in the other major component of the bill: compelling the NSF director to rank the importance of proposed facilities. Currently, the agency's governing body, the National Science Board, says "yea" or "nay" to specific projects without indicating priorities.

That process works fairly well when NSF has enough money to do everything. But when money's tight, some approved projects get left out of NSF's budget request. Last year that led to a free-for-all, with backers of specific projects seeking congressional help to move up in the queue (*Science*, 27 July 2001, p. 586). These so-called earmarks are an unwarranted intrusion into scientific peer review, say many legislators. If NSF ranks its big-ticket items, says Representative Nick Smith (R–MI), who chairs the committee's research panel, that "would be a huge step toward making better decisions." The president's science adviser, John Marburger, also thinks it's a good idea: "Any process that establishes priorities for funding is good," he says.

Colwell agrees that such an exercise is important, and she notes that the bill "leaves priority-setting in the hands of the director, which is most appropriate." But sources say she views any mandatory sharing of those rankings with Congress as an encroachment on her prerogatives as a member of the executive branch. Colwell declined to elaborate, saying that "I'd prefer not to comment on pending legislation."

–JEFFREY MERVIS



Bigger bumps. The House bill would boost NSF's allowed budget by 15% a year for 3 years, a much larger jump than in recent years.

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U.S. ANTITERRORISM

Panel Would Screen Foreign Scholars

The U.S. government is putting another brick in the wall to shore up homeland security. This one is intended to prevent foreign terrorists from masquerading as researchers.

Last week White House officials unveiled a proposal to create a panel that would screen foreign graduate students, postdocs, and scientists who apply for visas to study "sensitive topics ... uniquely available" on U.S. campuses. The proposal comes as a relief to higher education officials, who had feared a more intrusive policy that would dampen the flow of foreign students and scholars. "This is an excellent framework for protecting national security, although many details remain to be spelled out," says Terry Hartl of the American Council on Education, which has followed the issue closely. "They seem to be fairly