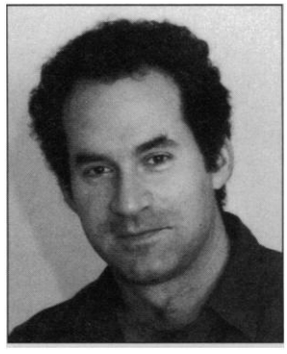
GENOME DATA

# The Perils of Involving Congress in a 'Catfight'

With one letter to William Natcher (D–KY), the powerful acting chairman of the House Appropriations Committee, a group of software manufacturers last week almost crippled the budget for the National Center for Biotechnology Information (NCBI) at the National Library of Medicine (NLM). The three firms charged that David Lipman, the center's head, was trying to put them out of business through unfair competition. At risk was the future of the largest national program for developing information systems and computational tools for molecular biology, which is why everyone is breathing a sigh of relief that an emergency lobbying campaign by prominent researchers—combined with last-minute compromises among the antagonists—convinced congressional staffers that the issue was resolved, at least for now. Even so, both the center and the manufacturers emerged from the encounter with their reputations somewhat sullied. The lessons from this close call are substantial: Among them, never let a "catfight," which even one of the manufacturers concedes should have remained in a back alley, spill over into Congress—especially in a year when legislators are desperately looking for budgets to cut.

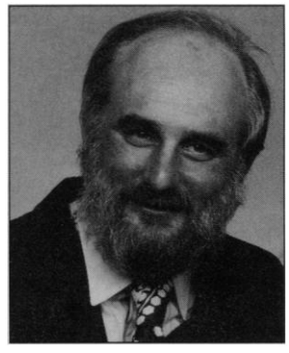


**Just doing my job.** NCBI head David Lipman.

**Unfair competition?** The spat began several years ago, not long after NCBI was created and Lipman, its first leader, started treading on turf the software manufacturers thought was theirs. Known for his brightness and his brashness, Lipman first ruffled feathers by moving responsibility for GenBank, the major DNA sequence database, in-house to NCBI, taking the job away from a commercial contractor, IntelliGenetics of Mountain View, California. Then came the second affront, from the software manufacturer's perspective: NCBI began not just collecting and disseminating DNA sequence data but putting out what they consider "slick" information retrieval software along with it—just the kind of end-user products that several private companies were working on. To add insult to injury, the manufacturers contend that NCBI uses its "privileged access" to the data to undercut the companies, releasing its products sooner and far cheaper.

As evidence, the manufacturers cite a new piece of software called Entrez, which combines sequence information from GenBank and the other major databases with Medline, so researchers can, among other things, call up bibliographic references to a particular piece of DNA sequence. While companies have to pay the NLM royalties to use Medline data—long a bone of contention—NCBI gets it for free. The upshot is that NCBI sells Entrez, on CD-ROM, for a bare-bones $57 a year, while a comparable program, developed by DNASTAR, a small firm in Madison, Wisconsin, costs about $1000. "This is not a level playing field. Believe me, my product is dead," says Fred Blattner, a University of Wisconsin geneticist and a co-founder of DNASTAR, who spearheaded the attack on NCBI.

"They are destroying the biotech software industry," agrees John Devereux, president of Genetics Computer Group, also in Madison, whose particular gripes concern BLAST, by all accounts a first-rate sequence similarity search program that NCBI is offering for free. Says Devereux: "It is very difficult for industry to compete with what is free." And the list of gripes goes on: The manufacturers complain that NCBI will not reveal what software it is working on, which deprives the companies of the ability to either steer clear of that particular area or else lodge a complaint before a competing product hits the street.



**My product is dead.** Fred Blattner, DNASTAR president.

At first Blattner, Devereux, and Mike Kelly, head of IntelliGenetics, appealed to Lipman directly, but both sides agree these conversations went nowhere. Then, instead of going to Lipman's boss, Donald Lindberg, director of the library, or even to the National Institutes of Health (NIH) Director Bernadine Healy, the three hired a lobbyist and went straight to Congress. They started with David Obey, a Democrat who is on the House Appropriations subcommittee that handles the budget for the Library of Medicine and who is from Blattner's and Devereux's home state of Wisconsin. Blattner says that one of Obey's aides told the manufacturers that the way to get NCBI's attention would be to try to get language written into the committee's report on the appropriations bill, essentially admonishing the library to play fair. And if NLM officials would not sit down and negotiate, the staffer said, there was always the threat of a budget cut.

The group heeded the aide's advice and upped the stakes with their letter to Natcher on 18 June—less than 2 weeks before the subcommittee was to decide on the NLM budget on 1 July. The authors sent their missive on the letterhead of the Biotechnology Software Manufacturer's Association, signed by Blattner, Devereux, and Kelly, "representing" the association.

**The threat of the knife.** To congressional staffers, the charges were worrisome, and they quickly called in library officials to tell their side. At a meeting on 25 June and one the following day, Lipman, Lindberg, and Kent Smith, deputy director of the library, denied any desire to compete with industry, pointing out that they were simply doing their mandated job and explaining that both the data and software are freely available for industry and the academic sector to improve upon. Apparently unpersuaded, staffers let it be known—none too subtly, says one NLM source—that unless they settled the dispute, they risked a budget cut. And it wouldn't be cosmetic surgery, says the source, but amputation. At some point someone alluded to a 50% cut, and NLM officials began fighting for survival.

The manufacturers had been looking for a stick, they contend, but nothing this drastic. Says Devereux: "We never wanted to put NCBI in mortal danger. We just wanted David to roll over a little." But Lipman didn't roll over; he went on the offensive, asking several friends in the genome community for help. In response, molecular biologist Richard Roberts at Cold Spring Harbor Laboratory promptly put out an alert Friday night on e-mail: "NCBI in trouble," urging supporters to write Natcher. By Monday morning hundreds of faxes were pouring into the offices of Natcher and other congressmen.

"Most unwise," wrote David Botstein, chairman of the genetics department at Stanford University and former vice president at Genentech, about slashing NCBI's budget. "The private sector is at present in no position to supply the kind of essential service to the biological community that NCBI ably provides....I do not believe that the allegations you received from a few companies are representative of the thinking...in the community."

Portrayed as being out to destroy NCBI, Blattner and his colleagues' stock in the genome community rapidly plummeted. And

the manufacturers, because of what Blattner calls his own "bumbling," proved an easy target. Among the errors Blattner is owning up to is that the "association" whose letterhead was used does not yet exist—the companies listed on the stationary, it seems, have only talked about forming one. So it is no surprise that officials at two of the five companies listed, Applied Biosystems Inc. and TEXTCO, were furious when they first learned about the letter—10 days after it was sent. Both immediately wrote Natcher over the weekend disavowing any responsibility for or knowledge of the letter. "It was naive, stupid, and not necessary," says Blattner about using the letterhead. "I apologize."

In any case, with the budget ax hanging over their heads, both sides eventually hammered out a policy statement that meets some, though not all, of the manufacturers' concerns. And perhaps more important than the specific concessions about the Medline licensing fee and staying away from fancy end-users software, NCBI agreed to keep the companies apprised of its plans and to set up an advisory group of manufacturers.

Both sides are claiming victory—Blattner and friends because they finally got Lipman's attention; Lipman because he apparently averted a near-fatal budget cut. (Exactly how NCBI's budget fared will not be known for a couple of weeks.) Indeed, both sides seem genuinely happy to have the affair behind them.

But is it? Although Obey did not introduce any specific language into the appropriation subcommittee's report, he reportedly told the committee that he was unhappy with what he perceived as NCBI's hardball tactics. The committee vowed to watch NCBI closely over the year, and at least some members believe that important issues about the proper division of labor between NLM and the private sector remain to be resolved. And it's a safe bet that when the manufacturers voice their gripes again, as they are sure to, not only NCBI but Capitol Hill will be paying careful attention.

–Leslie Roberts

SCIENCE FUNDING

# Is the Wolf Finally at the Door?

For the past several years, researchers by and large have escaped the brunt of the budget ax that has chopped large chunks out of domestic spending. Certainly, as high-energy physicist and Nobel laureate Leon Lederman pointed out in his January 1991 report, *Science: The End of the Frontier?*, research budgets haven't grown as fast as scientists would like. But at least the federal government has provided modest overall increases for R&D—and substantial boosts in some selected areas. This year, however, researchers could be in for a nasty shock.

The first concrete sign of trouble came on 17 June, when the House voted to cancel the Superconducting Super Collider (SSC) amid warnings from several legislators that the nation cannot afford to support such costly and esoteric ventures. A week later, a key House appropriations subcommittee approved a bill that would hold the National Science Foundation's (NSF) budget virtually flat in fiscal year 1993 instead of increasing it by 18% as the Administration had requested (*Science*, 3 July, p. 19). The same subcommittee also voted to cut nearly $200 million from science programs at the National Aeronautics and Space Administration (NASA) while trimming the $2.25 billion requested for the space station down to $1.7 billion. And just last week, another appropriations subcommittee approved a bill that would give the National Institutes of Health (NIH) an increase of only about 3.3%, about $200,000 less than the Administration requested; in recent years, Congress has almost unfailingly added substantially to the request for NIH (see table).

While the actions taken so far are still preliminary—the full House hasn't yet voted on any spending bills except the one for the Department of Energy (DOE), and the Senate will get its own crack at them later this summer—the prevailing wisdom on Capitol Hill is that most research agencies are going to end up with budgets that won't even keep pace with inflation. Indeed, the main question now seems to be whether research funding's "charmed life," as one congressional aide puts it, has come to a permanent end. While some observers, such as House science committee chairman George Brown (D–CA), are predicting that 1993 will be science's most painful year, other analysts at the Congressional Budget Office (CBO) suggest that the worst may be yet to come.

**RESEARCH BUDGET SQUEEZE**

| Agency | 1992 Budget | 1993 Request | 1993 House Action |
|---|---|---|---|
| NSF | $1.9 billion | $ 2.2 billion | $ 1.9[1] billion |
| NIH | 8.9 | 9.4 | 9.2[2] |
| NASA | 2.7 | 3.0 | 2.7[1] |
| Space station | 2.0 | 2.3 | 1.7[1] |
| DOE | 2.6 | 2.9 | 2.5[3] |
| SSC | 484 million | 650 million | 0[3] |

[1] 25 June subcommittee markup [2] 3 July subcommittee markup
[3] Passed by House on 17 June

**Dunce caps.** Ask just about anyone familiar with the federal government's Byzantine budget process why science is faring badly this year, and they'll give you a three-word answer: the Budget Enforcement Act. Passed in 1990 as a compromise between the White House and Congress aimed at controlling growth in federal spending, the law set strict ceilings on several budget categories for the fiscal years 1991 through 1993 and forbade Congress to shift funds from one category to another.

For the past 2 years, these ceilings have sharply restricted legislators' flexibility to spend money in the "domestic discretionary" portion of the budget—a roughly $500 billion category that funds all civilian R&D and a variety of other government functions ranging from the criminal justice system to environmental protection to social welfare programs. Up to now, however, science has done surprisingly well under the budget caps. Last year, for instance, NSF received an 11% increase in its research budget, while NIH's funding was boosted by 8%, NASA's space science by 10%, and DOE's energy research by 10%.

The problem this year, according to CBO analysts and congressional aides, is a domestic discretionary budget ceiling for fiscal 1993 so low that Congress would have to cut all domestic programs by 1.3% from their 1992 levels, or about $6.4 billion, just to satisfy the budget law. House budget committee analyst Michael Telson predicted last April that this budget pressure would create a massive game of "musical chairs" in which science funding would compete for budget increases against popular social programs such as education and housing (*Science*, 24 April, p. 439). "What that means is that when Congress divvied up the pot, it had to distribute the pain," one congressional aide says now. "Some programs are going to get more—priorities like education and health are going to get increases. Other programs are going to get screwed."

**Trick or treat.** Adding insult to injury, say some budget mavens on Capitol Hill, is the fact that many of the budgeteers' favorite accounting tricks seem to have outlived their usefulness, making it even harder to find "new money" this year. One popular method of evading the budget caps, for instance, has been to appropriate money for a program but to delay part or all of the actual spending, or "outlay," until the following