

derived from that sequence.

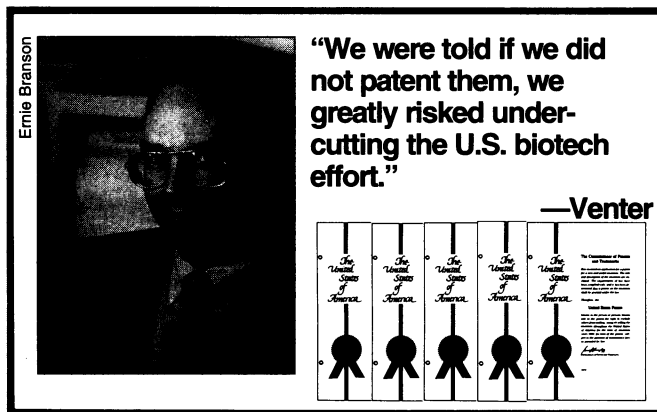
Watson and Galas are also worried about the effect of the NIH patent application on the genome project itself. Specifically, they ask, will it impede sharing of information among researchers, both in the United States and overseas? In the United States, at least, there seems to be no problem so far; Venter submitted all his data to Genbank at the time he published and filed his application. "We did not delay Craig's publication by one minute," insists Adler. But, adds Robert Strausberg, director of technology transfer at the NIH genome center, "Just because Venter published right away doesn't mean it will always happen that way. A company might not."

DOE's Galas is more concerned that these patents might have a chilling effect on efforts to build an international database. Already, there are signs of tension in England, where the Medical Research Council is pursuing a cDNA project similar to Venter's. Vickers, who heads the database and resource center there, says that in a "rational" world, European, Japanese, and U.S. scientists would all compare their cDNA data so they could avoid wasting time mapping the same cDNA. "But suppose we check our database against Venter's and find there is 10% overlap. Is he going to lay claim to [our clones]? We certainly want to share our data. But we want the issue of patents sorted out first."

And then there is the price tag for pursuing the patents, which has people on both sides of the Atlantic fuming. Patent attorneys say it could reach \$30,000 to \$50,000 for one application, and there is the very real prospect that NIH will have to break its bulk applications down into smaller chunks, perhaps even single sequences—at which point the cost becomes prohibitive by any reckoning. Bodmer and numerous investigators fear that the tab, whatever its total, will come out of money that would be better spent on research. But Adler notes that NIH will not pursue patents unless industry is interested, and that the agency typically asks its technology licensees to bear the brunt of patent expenses. "It will be the company bearing the cost, not the taxpayer."

Striving for resolution

With Watson and Adler visibly feuding, the Europeans are wondering just what U.S. policy is. "There is no coherent government policy, and we need one—quick—since the sequence is just pouring out," says DOE's Galas. He says he and Watson plan to seek a ruling from the Patent Office, adding, "It would be a big mistake to leave this one to the lawyers."



At NIH, Strausberg has been meeting with Adler and Venter. The topic had gotten "very emotional," he says, and "my role is to cool it down." After being hit with such a violent backlash, Adler insists his views are not set and that he is still formulating a policy on the issue. Despite Venter's earlier statements,

Adler says it is unclear whether NIH will attempt to patent all the cDNAs Venter turns up, and he says that cost will certainly be a factor. Controversy aside, says Adler, "I still think filing the application was the prudent thing to do."

Meanwhile, Venter is still churning out cDNA sequences, at an ever-increasing rate—up to 2000 a month now. Adler has scheduled a meeting with industry representatives on 14 November to "announce that this invention is ready for licensing." By gauging their interest, he says, he can decide whether the patents are worth pursuing. At the same time, Adler is preparing a second patent application, this one on 1500 additional cDNAs, to coincide with Venter's next publication. ■ LESLIE ROBERTS

Edelman: Bye, Bye Rockefeller

What's going on at Rockefeller University? Two months ago aging-research luminary Anthony Cerami announced he was leaving Rockefeller to become president of the Picower Institute for Medical Research. Not alone, mind you: He took his 30-member lab with him. And not because he was unhappy at Rockefeller, he said, or with David Baltimore, whose 1989 election to head the university Cerami had opposed. Rather, Cerami said, he was leaving because his new offer was such "a unique opportunity." Now that story is being repeated, as Nobel Prize-winning neuroscientist Gerald M. Edelman gives similar upbeat reasons for jumping ship after three decades at Rockefeller.

This week Edelman announced he's leaving Rockefeller for the Scripps Research Institute in La Jolla, California, where he will become chairman of a new department of neurobiology in July. Like Cerami, Edelman is taking his entire lab, with 11 scientists, as well as the 14-member staff of the Neuroscience Institute (an independent think tank on the Rockefeller campus, which he heads). Like Cerami, he insists he is going elsewhere for "overwhelming positive reasons."

But could one of those positive reasons be that he won't have to put up with Rockefeller president David Baltimore's well-publicized troubles with Congressman John Dingell or with the opposition to Baltimore that some say is building at Rockefeller? Edelman has long been cited by insiders as a leader of the opposition to Baltimore's appointment as president of Rockefeller and has reportedly been unhappy with Baltimore's administra-

tion of the university. But if such feelings played a role in his decision, Edelman isn't talking publicly. To *Science*, he declined to confirm or deny any influence of Baltimore on his departure.

Instead, Edelman points to the "upbeat environment and sense of hopefulness about the future" he finds at Scripps. That was one of the drawing cards offered by Edelman's long-time friend, Scripps president Richard Lerner, who says he's been trying to interest Edelman in making that move for years. The discussion became serious only 9 months ago, Lerner says, but that can be attributed to the fact that Scripps sweetened the deal by offering to construct a new building for the Neurosciences Institute on its spectacular ocean-view campus.

Edelman plans to keep raising funds as the director of the institute and to build the new department of neurobiology at Scripps. His early work was on the structure of immunoglobulins—the active molecules of the immune system—for which he won the Nobel Prize in medicine in 1972. Thereafter, he branched out into neuroscience, particularly the study of the neural cell adhesion molecules (N-CAMs), which have a key role in giving form to the developing nervous system. Edelman's lab will continue its research on N-CAMs. And Edelman will continue to avoid direct comment on why he left what he calls "my home for 34 years." Except for adding, in his interview with *Science*, that he identifies "very closely with the spirit and style of the old Rockefeller." ■ ANN GIBBONS