DNA: Laws, Patents, and a Proselyte

The strongly running tides of legislation that lap around the technique of gene-splicing with recombinant DNA molecules ebbed and flowed last week in the following actions.

At Cambridge, the City Council closed the books, or at least a chapter, on its 8-month confrontation on the issue with Harvard and MIT. At a meeting on 7 February the council rejected by a 6-to-3 vote a proposal by Mayor Alfred Vellucci to ban the research altogether. By unanimous vote, Vellucci included, it then adopted into law the recommendations of its citizens' review board, which allow research to proceed under the NIH guidelines but with a few extra restrictions (*Science*, 21 January). But the council added further restrictions. One is to ban research requiring the highest, or P4, level of physical containment. All P3 research must use disabled (EK2) organisms. And premises used for P2 and P3 research must be effectively free of rodent and insect infestation, failing which the facility can be ordered closed by the city's health commissioner.

This stipulation may present a problem for Harvard. The Bio-Labs, home of the P3 facility which has occasioned the whole brouhaha, is infested with a seemingly ineradicable species of ant. But the P3 lab, according to its chief designer Mark Ptashne, "has been built at extra expense to make sure that there will not be any insect problem." Ptashne says of the council's decision that "basically it vindicates our position, although there may be some technicalities of wording that the opponents can exploit. To the extent that these will be decided by the health commissioner and not become a political football, research can go ahead all right." The city council's action lifts the moratorium on P3 research that had been in effect since last July, although the moratorium on P4 is in effect continued.

Another regulatory kerfuffle, this time arising from differences of motive between bureaucratic fiefdoms in Washington, has centered round a patent regulation issued by Betsy Ancker-Johnson, Commerce Department assistant secretary for science and technology. The regulation allows accelerated processing for patent applications involving gene-splicing research, but exempts applicants from disclosure—an important requirement of the NIH guidelines—if their foreign patent rights would be jeopardized. Senator Dale Bumpers (D–Ark.) wrote Ancker-Johnson protesting that her action preempted the discussions now going on in government as to whether the NIH guidelines should apply to industry (*Science*, 11 February). Secretary of HEW Joseph Califano last week wrote to Ancker-Johnson's boss, Secretary of Commerce Juanita Krebs, asking that the order be delayed.

Whose idea was it in the first place? Apparently an industry source suggested the idea to the NIH, which passed it on to the Department of Commerce. Ancker-Johnson sent a draft of her order to the NIH 6 weeks before its publication in the Federal Register last month but received no objection. Joseph Perpich, an aide to NIH director Donald Fredrickson, says the NIH didn't comment on the order "because we didn't think they were going to act on it." He notes that the Commerce Department is represented on the interagency committee considering the gene-splicing issue. The committee is preparing legislation of its own.

The committee has been anticipated on this issue by Senator Bumpers. He introduced a bill on 4 February that would require the government to issue licenses to those doing gene-splicing research, and a similar bill has been introduced in the House by Representative Richard Ottinger (D–N.Y.). Introducing the bill, Bumpers declared that the pharmaceutical companies in this country "are in a mad, head-long rush" and that "virtually none of them is complying with NIH guidelines." Asked for evidence of this statement, a Bumpers aide said the senator had meant to say that the companies are not at present compelled by law to follow the guidelines.

Bumpers also shared with his colleagues on the Senate floor some views on the religious implications of DNA. Bumpers had found the subject one of the most interesting he had ever studied. So much so, he said, that "If a man has a tendency to be atheistic, if he reads very much about DNA, it will almost certainly change his spiritual thinking."—N.W.

Under its new policy, adopted in June 1974, it is permissible, under certain ground rules, for the university to assign patents to industry.

But more important in the long run, perhaps, Harvard's new patent policy is aggressive, placing a real obligation on the scientist to let the university know if research is leading to a patentable product. The implications of this new requirement to speak up have yet to be measured, and the university is moving slowly in this area while it considers complex questions such as whether it should establish its own patent office.

The patent situation was not the only aspect of the business side of the agreement that demanded some fresh attitudes on the part of the negotiators. In keeping with its commitment to the "public good," Harvard wanted, and got, assurances from Monsanto that, if there was anything to develop, the company would do so quickly and economically. One job assigned to the public interest advisory committee is to see to it that Monsanto honors that part of the bargain.

Choosing the members of that advisory committee was, apparently, as delicate a part of the negotiations as anything else. Harvard officials take credit for proposing the idea of a committee, which was written into the original 1974 agreement, but praise the company for accepting it willingly. (Hale Champion, recently named deputy secretary of Health, Education, and Welfare, was among the Harvard leaders who suggested the advisory committee.) But, when it came to choosing members, it sounds as if each side had what amounts to the right to peremptory challenge of the other's suggestions. As Throdahl points out, Monsanto did not want persons whom it felt to be biased against industry and Harvard could not accept anyone it thought lacked respect for academic principles. "We also had to get people who had no association with either institution (though Harvard graduates were not ruled out) and who were *sympathetic* to the idea of a joint project. It took us a year to find them all," he notes.

William D. Ruckelshaus, Jr., senior vice-president of Weyerhauser Company in Tacoma, Washington, and former administrator of the Environmental Protection Agency, and Frank Stanton, chairman of the American National Red Cross and former vice chairman of CBS, Inc., have the credentials for being knowledgeable about the ways of business but also patrons of the public interest. The three scientist members, Paul J. Flory, a Stanford University chemist; Alton Meister, a biochemist at Cornell medical school; and Maxwell M. Wintrobe, a hematolo-