

their own scientific articles, select the journals for publication and meetings for presentation, and decide when to submit articles to journals," hospital director Charles Sanders said last week.

The appointment of Goodman is part of a joint plan by Mass General and the Harvard Medical School to upgrade their capability in genetic engineering. Harvard Medical School recently hired Philip Leder away from NIH to head its department of genetics. John Potts, who chaired Mass General's search committee, notes as Goodman's scientific achievements his collaboration with Cohen and Boyer on some of the original papers establishing the recombinant DNA technique, and his work on the control of gene expression by hormones.

Another new gene splicing enterprise in Cambridge is the Genetics Institute which, despite its name, is a commercial company. The two principal scientific advisers to the company, who also serve on its board of directors, are Mark Ptashne and Tom Maniatis of Harvard University. Last year Harvard approached Ptashne with the idea of setting up a gene splicing company in which the university would take equity, but dropped the plan after protests from the faculty. The other backers went ahead without Harvard, and the Genetics Institute was founded in December 1980. Capitalized at more than \$5 million, the company's board of directors includes William Paley of CBS and Benno Schmidt of J. H. Whitney.

Meanwhile at Massachusetts Institute of Technology another kind of project has been under consideration for several months, that of a joint institution to be set up by its biology department and by the Whitehead Foundation of New York. The foundation, set up by Edwin Whitehead after sale of his medical instrumentation company to Revlon, supports basic research. It hopes to set up an institution for research in developmental biology, at which members of MIT's biology department would hold joint appointments. The foundation is said to want MIT biologist David Baltimore to be director, and to be prepared to invest \$100 million in an endowment fund for the institution. MIT has not yet decided whether to accept the offer.

—Nicholas Wade

## False Alerts and Faulty Computers

An early-warning computer system buried deep inside a hollowed-out mountain in Colorado is unreliable and inadequate because of poor design and management, congressional investigators charged at a recent House hearing. In response, a Pentagon communications official said a change was under way: the early-warning center will no longer have to use computers of the World Wide Military Command and Control System (known as Wimex), a controversial multibillion-dollar system that has come under repeated attack for poor reliability.

The early-warning system at the underground headquarters of the North American Aerospace Defense Command (NORAD) was the source of a series of false alerts in 1979 and 1980 that received widespread media attention (*Science*, 14 March 1980, p. 1183). The computers falsely reported that Soviet missile attacks were under way, and, during a 1979 alert, jet interceptors took off and the launch control centers for the 1000 or so Minuteman missiles scattered across the American heartlands went on a low-level nuclear alert. After each false alert, the Pentagon asserted that the problems had been fixed. In one case the Pentagon reported that an alert had been touched off by the accidental running of a computerized war game; in another, a silicon chip had broken down.

In a strongly worded statement before a House government operations subcommittee on 26 May, however, acting U.S. Comptroller General Milton J. Socolar said the problems stem from a decision by the Joint Chiefs of Staff in 1970 to use the same type of computers in all elements of the Pentagon's Wimex computer system. NORAD should have been exempt, he said, because of its critical mission and because the Wimex computers were obsolete for this purpose. The Government Accounting Office, which Socolar heads, has repeatedly made this charge for almost 3 years.

The main GAO criticism is that Wimex software is so cumbersome that extremely complex programs must be written to ensure that NORAD can do

real-time computing. Of late, development of this software at NORAD has cost \$3 million a year.

The following day, on 27 May, Pentagon officials denied that the computers were to blame, but at the same time said that NORAD in the future will be exempt from having to use Wimex equipment. Lieutenant General Hillman Dickinson, head of communications programs for the Joint Chiefs of Staff, said this change will be a minimal one, as Wimex computers make up only 5 of the 87 computers currently used by NORAD.

NORAD officials had complained about the Wimex equipment all the way back to 1970, and the Joint Chiefs had ignored their pleas. Whether or not the change would really take place was therefore the subject of a heated exchange between Pentagon officials and chairman of the subcommittee, Representative Jack Brooks (D-Texas). Brooks claimed that the commander in chief of NORAD, who testified on the previous day, knew nothing about being exempted from the Wimex computer program. Dickenson replied that the Joint Chiefs had made the decision on 9 January, but that bureaucratic channels had kept the message from being clearly heard out in Colorado.

—William J. Broad

## Protests Help Argentinian Physicist

A judge in Buenos Aires has dismissed all the charges against physicist Jose Westerkamp and five other civil rights activists. The defendants, members of the Center for Legal and Social Studies, an Argentinian human rights group, were arrested in February, held incommunicado for a week, and subsequently accused of having sketches of military installations. Their arrest sparked off a flurry of protests from the American scientific community (*Science*, 20 March 1981, p. 1327).

In communications with human rights groups in Washington, Westerkamp has credited the protests from the United States and Europe as being a critical factor in securing his release while the charges were investigated, and in finally getting the charges dismissed.—Colin Norman