

Biotechnology's Movie Debut Worries Industry

Ever since Twentieth Century Fox leaked word several months ago that it was making a thriller depicting a biotechnology experiment gone awry, the biotechnology industry has been bracing itself. Cetus Corporation, in fact, agreed to serve as an anonymous consultant to the filmmakers in exchange for a sneak preview.

A preview of the film, called *Warning Sign*, was held in Washington on 12 August, and the reception looked like the social hour at a biotechnology conference. A couple of Monsanto representatives were chatting with people from the Environmental Protection Agency. A number of science journalists were milling about. A few researchers from the military's Fort Detrick laboratories were inconspicuous in civilian clothes. Activist Jeremy Rifkin was there to see the film a second time. ("The film will generate considerable discussion," he said.)

If anyone gets a black eye from the film, however, it may be the military, not the industry. In the opening sequence, a crop duster sweeps down over the Utah countryside. ("That's not our product," whispered one of the Monsanto people.) The film then goes on to show the military conducting secret biological weapons research in a small Utah town, using an agribiotechnology company as a cover. A test tube accidentally breaks and a dangerous virus escapes. The building is sealed off. Despite elaborate safety precautions, human error leads to a mass infection of laboratory workers, who go berserk. There's a lot of blood and gore and broken reagent bottles. Sam Waterston plays the town sheriff trying to save his wife, played by Anna Quinlan, who is locked inside. The movie's last line is meant to evoke outrage. "I'm a scientist," insists one of the main characters. "I know what I'm doing."

In view of the recent controversy about the military's desire to build a new laboratory for biological warfare research at Dugway Proving Ground, Utah, it is hard to say what the impact of the film might be. The Army scientists looked rather glum after the film. "We don't use glass test tubes in P4 containment. We use unbreakable

test tubes," said one of them. The plot of the movie is driven by several breaches of safety protocol which he considers implausible, including a scene in which a scientist in a P4 lab becomes infected by lifting the faceplate on his protective helmet. "That's impossible with the kinds of suits we use," the army scientist said. "They're all one piece." His colleague added, "We do defensive research only."

Director Hal Barwood noted in an interview that the film had been shot before the debate over Dugway began. The idea for the film grew out of his interest in Legionnaires' disease, medical mysteries in general, and people's behavior under stress. Surprisingly, he says, "I'm an enthusiast about genetic engineering. I'm not like Jeremy Rifkin." He pitches the film as *China Syndrome* meets *Night of the Living Dead*.

Michael Goldberg, an executive at Cetus, said, "I'm glad it wasn't a good film cinematically. I think its impact will be minimal." Monsanto isn't taking anything for granted. For the past year, the company has been developing a public relations campaign on biotechnology. In mid-July it began a test of it in Columbus, Ohio, and Columbia, South Carolina. Monsanto denies any connection with the release of the movie. "We want to see if we can raise the level of awareness and increase knowledge and positive attitudes about biotechnology," said a Monsanto representative.

—MARJORIE SUN

Academy's Fusion Study Causes a Stir

There is a flap in Washington over a review by the National Academy of Sciences of the Department of Energy's inertial confinement fusion program. Stephen O. Dean, president of Fusion Power Associates, the industry lobbying arm, suggests in his organization's August newsletter that the panel is under pressure from the Reagan Administration to "tone down" findings of an unpublished interim report prepared in June.

William Happer, professor of physics at Princeton University who heads the Academy panel, says Dean is "misinformed" and "has blown this

thing out of proportion." Contrary to assertions made by Dean, Happer contends that the panel has not agreed to soften language arguing that research on inertial confinement fusion is overclassified to the point of impeding scientific progress. DOE's division of classification, Happer says, did object to the finding but the panel has not altered its statement.

Likewise, Lee M. Hunt, the Academy's staff officer for the review, denies that there is any skulduggery afoot. He says there has been no pressure from the President's Office of Science and Technology Policy (OSTP) to remold the interim report to "... fit the executive branch's preconceived opinions of the program ...," as Dean asserts. OSTP sent the review panel a letter containing criticisms of aspects of the report. The Academy panel took up the letter at a scheduled meeting held 5-9 August in San Diego. But a reply has not been sent to the White House.

While Happer and Hunt flatly deny any wrongdoing, so far they have refused to release the tightly held interim report. The Academy is not making it public, Hunt says, because it was prepared under contract for the White House. President Reagan was ordered by Congress in 1984 to conduct a review of the inertial confinement program. He appointed OSTP director George A. Keyworth, II, and Alvin W. Trivelpiece, director of DOE's Office of Energy Research to oversee the task. They then contracted with the Academy to perform the review.

Dean, who has not seen the interim report, wants the Administration to release it promptly. He says the fusion science community was led to believe that it would be made public this summer. At least some DOE and national laboratory officials were expecting the Academy to make the document public. But Happer says it was not clear at the outset of the panel's work whether the interim report was to be made public. The panel, he adds, "did go to some effort to make it unclassified."

Supporters of inertial fusion have been anxious to see the interim report—in part because of the Administration's assault on the program's budget. The House and Senate appropriations committees have rejected paring back the budget to \$70 million and have funded it at \$155 million for 1986. Had the Administra-