

tion order, signed by Jimmy Carter.

- Results of research supported by government grants may be classified. In the Carter order, government grantees could not have their work classified.

- The Carter order said that if there is doubt about whether to classify information, the government official responsible for classifying should not classify. The Reagan order says that if the person who has potentially sensitive information has any doubts about whether it should be classified, he should "safeguard the material" as though it were classified for 30 days, during which time government authorities will decide whether to classify. Thus the onus is put on the researcher to keep what he suspects may be sensitive information secret.—**Gina Kolata**

Health Coalition Backs Stronger Warning Labels

A coalition of major health associations recently endorsed legislation that would require stronger warning labels on cigarette packages. The group, including the American Cancer Society, the American Lung Association, and the American Heart Association, announced its support after the Reagan Administration in mid-March dropped its initial backing of the bills.

American Cancer Society president Robert Hutter wrote to President Reagan on 18 March, expressing "profound disappointment" over the about-face and urged him to reconsider. Hutter said recently at a Society meeting in Daytona Beach, Florida, that he had not received a response from the White House.

Legislation introduced in both the House and Senate would require cigarette manufacturers to vary warning labels on cigarette packs and also to disclose upon request the additives in their products. The labels, for example, might warn that smoking causes cancer or that pregnant women who smoke endanger the health of their babies.

Federal officials told a House subcommittee that the Administration supported the bills, but, 4 days later, said that the issue "is still being studied."—**Marjorie Sun**

Heroin, Morphine Found Comparable as Pain-Killer

At a time when private citizens and some federal legislators are pressing to legalize the use of heroin for cancer patients, there is mounting evidence that heroin is no more effective in treating cancer pain than morphine when injected. A scientist from Sloan-Kettering Institute for Cancer Research announced at an American Cancer Society meeting results that confirmed earlier findings by researchers at Georgetown University on the equivalence of the two drugs (*Science*, 10 April 1981, p. 145).

Robert F. Kaiko, a pharmacologist, said, "There is no reason to believe that heroin is any more effective than morphine or that heroin is capable of relieving pain to a greater degree than is morphine." Although twice as much morphine must be injected to achieve the same pain relief as with heroin, patient's mood improvement and side effects are "comparable," Kaiko said.

That heroin is twice as potent as morphine has been misconstrued to mean that heroin is a more effective analgesic. Last month, in his syndicated column, William F. Buckley, Jr., expressed support for the heroin legislation, citing the Georgetown study as evidence to buttress his argument. But Buckley misinterpreted the results, saying that "... patients rated heroin as two and one-half times more effective than morphine in bringing relief."

Kaiko commented, "There's mythology surrounding certain drugs," such as heroin, but "I hate to see people have the impression that heroin is unique. It is not unique and should be treated so."

Three bills that would legalize heroin for treating pain in cancer patients have been introduced in the House and Senate, but none have progressed very far. Kaiko and Georgetown researcher William Beaver concur that a few cancer patients may benefit from heroin. If it were legalized, it would "give a physician another arrow in the quiver," Kaiko said. On the other hand, he and Beaver say that it is not the lack of heroin that is a problem, but rather the failure of physicians and nurses to administer medication at doses that are adequate or

frequent enough. Kaiko also noted that some hospital pharmacies fail to stock the full range of narcotic medications available, possibly fearing theft.

Beaver said that an even greater problem is that pharmaceutical companies are reluctant to manufacture heroin. It would be a small profit item and, as a controlled substance, it would require burdensome paperwork ordered by the federal government. For now, Beaver said, "we don't have a convenient, organized way to provide heroin."—**Marjorie Sun**

Monsanto Awards \$4 Million Grant

Monsanto has awarded a \$4 million, 5-year grant to a researcher at Rockefeller University. The award, which was announced at a meeting of the American Chemical Society (ACS) in Las Vegas on 31 March, will support basic research in plant molecular biology under the direction of Nam-Hai Chau. The research concerns the structure and regulation of plant genes involved in photosynthesis and could have many potential applications to agriculture, a particular concern of Monsanto.

The agreement is the first large grant made by Monsanto since the company signed in 1975 a 12-year agreement with Harvard University that is expected to total more than \$25 million. The company took a lot of heat in that case for refusing to make public the financial details of the agreement and has decided this time to publish those details. Under the agreement, Rockefeller will retain ownership of all patents that may arise from the work, but Monsanto will receive an exclusive license to the patents with royalties to be negotiated later. The company may provide support to obtain the patents. ("After all," says F. Allen Heininger of Monsanto, "we have 55 patent attorneys for that purpose.") If the company does not take steps to commercialize an invention, the university may then license it to a third party. To protect patent rights, any proposed publications will be sent to Monsanto at least 30 days before submission to a journal.

—**Thomas H. Maugh II**