records to indicate that the publisher was asked for or gave its assent.

Melmon says he does not know what happened but speculates that Williams delegated the responsibility to obtain the permission and called him under the false impression that it had been given. Melmon has no written record of Williams's assurances, however, and Williams's own files unfortunately were discarded late last year.

At the time, Melmon was working closely with the other editors on the sixth edition of Goodman and Gilman. Why did he not seek the permission himself or even discuss it with them? He says he was spending 4 or 5 hours a day on that book and was being pushed to do more. "I sure as hell wasn't going to ask them to help me with something that diverted my attention from their book," he says.

Some observers have pointed out that it is inconceivable that a publisher would grant permission for so much material to be reprinted from a major textbook. Melmon acknowledges that, in retrospect, it should have struck him as more incredible than it seemed at the time, but "Bob [Williams] was the kind of person who could convince anybody" to do what he wanted.

Friedenthal says a draft of Melmon's manuscript indicates that he intended to give attribution.

In any case, Melmon went ahead and incorporated material from manuscripts he was working on for Goodman and Gilman. He made no attempt to disguise the origin; the published version of his chapter in Williams contains only minor style changes. Indeed, he says he even changed the title to include the word autacoids because the term was coined by Douglas and he wanted to make it clear that the chapter relied heavily on Douglas's work.

Melmon says that when he cut-and-pasted the material into his manuscript, he added handwritten notations detailing where the text came from. These notations were supposed to have been printed in the body of his chapter. He also said he left instructions for a footnote to be printed on the title page of the chapter acknowledging the use of material from Goodman and Gilman. None of the attributions were published, however, and a footnote on the title page only acknowledges support from a National Institutes of Health training grant.

(Among the 1000 references at the end of Melmon's chapter are citations to work in Goodman and Gilman, which is denoted as being in press. They are citations for specific points in the chapter, however, and in no way indicate that material was reproduced verbatim.)

Friedenthal, Melmon's lawyer, says that among the few documents that have been unearthed is a draft of the manuscript with Melmon's notations giving attribution for the incorporated material. These have been turned over to the Stanford ethics committee.

How the attributions failed to get into the printed version is unclear. One explanation, however, is that Melmon says he did not personally read the galley proofs even though production of the book was in turmoil after Williams died of a heart attack. The editorial problems were in fact so severe that the book eventually came out late with a foreword explaining the delay, and Melmon's chapter was so sloppily edited that the footnotes were not even assembled in a single list in alphabetical order.

Melmon apparently knew there were some problems because he says he learned that scientific errors had been introduced by an editor at Saunders and he insisted that the text be restored to its original form. Nevertheless, Melmon says he delegated responsibility for checking the galleys to assistants in San Francisco.

The medical school ethics committee is expected to send a report of its investigation to Stanford president Donald Kennedy in the next few weeks. It will then be up to Kennedy to determine what action, if any, should be taken. The harshest sanction would be to dismiss Melmon as a tenured professor, but Friedenthal considers that to be "not even in the realm of possibility." He adds, "without a showing that Dr. Melmon intended to commit fraud, there is no justification for any sanctions against him whatsoever."

Macmillan's attorneys are discussing a settlement with Saunders, but they decline to disclose details.

In the meantime, Melmon has sent a letter of apology to everybody involved and has offered to forgo all royalties for the Williams book. He describes himself as "very shaken, very concerned" by what has happened. Even if the investigation supports his version of the events, Melmon says "how am I going to be able to deal with my peers?"

—COLIN NORMAN

Bill Proposes Added Review of Animal Research

A new salvo in the animal welfare debate has just come before Congress in the form of "The Information Dissemination and Research Accountability Act" (HR 5098). Introduced by Representative Robert G. Torricelli (D–N.J.), it calls for all federal research grants involving experiments on animals to be reviewed by a presidentially appointed panel that would consider the whole of the world's biomedical literature before approving individual proposals. Although Torricelli says he plans to convene hearings, time to do so during this legislative session is running out.

A stated purpose of the bill is to introduce use of novel optical and electronic techniques to expedite the dissemination of biomedical information "to prevent the duplication of experiments on live animals." However, if enacted, the federal granting system would certainly be strained, with its turn-around time slowed by a review body whose members could be appointed according to political whim. Moreover, it may not be technically feasible to implement the bill.

The premise for the bill, which was developed by United Action for Animals, a New York–based group, is that the current system for communicating science is so inefficient that "duplication of experiments on live animals is the rule, not the exception." This conclusion grows out of an informal analysis the organization has conducted since 1975, collecting research reports and assigning them to simple categories. The many papers suggest massive repetition, according to director Eleanor Sieling.

Although rigorously disproving this analysis would be as difficult as proving it right, the research community is not shy in calling it simplistic and flawed. James B. Wyngaarden, director of the National Institutes of Health, which is the principal federal agency that would be affected by this legislation, rejects the premise that there is needless duplication. "The current peer review system ensures that unnecessary duplication of research does not occur," he says. Moreover, the fact that only about one-third of all research proposals now is funded is

"a powerful deterrent" against wasteful use of animals.

Torricelli's bill, which calls for the creation of a National Center for Research Accountability, provides another measure of the widening gap between animal welfare groups and the biomedical research community. Although such a center strikes some NIH officials as unappealing, that opinion was disregarded in introducing this legislation.—**JEFFREY L. FOX**

FDA Resurrects Top Science Office

The Food and Drug Administration (FDA) recently resurrected a top in-house science advisory group to improve science policy and beef up research at the agency. The new Office of Science has been reconstituted to raise the visibility of scientific issues at the agency, according to an agency announcement.

The office will be headed by a new assistant commissioner, whose elevated status will afford a "fast track to the FDA commissioner," according to Jess Stribling, a special assistant to acting FDA commissioner Mark Novitch. FDA plans to fill the post after reviewing candidates from inside and outside the agency.

The new office is a result of another round of bureaucratic reshuffling that has occurred over the past several years. A similar unit was formed in 1978, which eventually was combined with another FDA office. Last year, another science office was set up that had similar functions to the new one but was lower on the totem pole.

The new office's responsibilities combine the duties of the previous science office and the post of science adviser. Most of the nine staff members for the new office were transferred from the old science office.

Among its duties, the group is charged with advising the commissioner on science policy, representing FDA in discussions with other federal agencies, monitoring the management of research and training, and improving the quality of research. For years, critics from within the agency and on Capitol Hill have complained that the science at FDA is not up to snuff, especially when contrasted with the agency's cousin a few miles away, the National Institutes of Health.

Bets on the selection of a new commissioner apparently are off now. As the election approaches, rumors about prospective candidates have died down. The Administration was hoping to find a woman for the job, but so far offers have been turned down by the various candidates. Agency staff say that Novitch, who has been an acting commissioner on and off for several years, would be a logical choice, but apparently the Administration wants somebody different.

—**MARJORIE SUN**

Landsat Sale Nears Resolution

The long and bitter argument over the commercialization of Landsat appears to be nearing a resolution. A number of administrative and legislative efforts have begun to converge, with the ultimate goal of getting the government out of the remote sensing business entirely (*Science*, 12 August 1983, p. 632).

First, the Commerce Department announced last week that seven companies have put in bids to operate the existing Landsat system, based on a request for proposals that went out in January. Ironically, the Communications Satellite Corporation, COMSAT, declined to bid on the grounds that it was overextended with other projects. COMSAT's earlier proposal to take over Landsat *and* the weather satellites was what set the current commercialization process in motion in the first place (*Science*, 11 February 1983, p. 752).

Next, although the bids are in limbo for the moment as everyone waits for Congress to specify *its* groundrules for the transfer, that action now seems very near. The House Committee on Science and Technology is putting the finishing touches on a bill (HR 5155) calling for a phased transfer to private contractors, and the Senate subcommittee on space has begun to consider a very similar bill (S 2292).

In the initial phase of the plan, the contractor would *not* have to buy the satellites themselves but would have the opportunity to educate potential Landsat users and thus to develop the market, something both NASA and Commerce have done very little of.

Then, during a 6-year transition period, the government would subsidize new satellites. Finally, the private operators would be on their own.

Central to the plan is preservation of the so-called "open skies" policy, which guarantees every Landsat user—domestic or foreign—equal access to the data.

Open skies is very much in line with a recent report of the Office of Technology Assessment (OTA), which stressed the importance of open skies to U.S. foreign policy. The free international flow of information is critical in the related area of weather data, for example. Moreover, Landsat has been a potent symbol in the less-developed countries that American space activities can be an opportunity rather than a threat; many are suspicious that proprietary data would be used for economic exploitation.

This does go against the grain of some of the potential Landsat operators, who maintain that the remote sensing business will not be profitable unless they can sell proprietary information. "[But] we made a philosophical decision a long time ago," says one House staffer. "You could either have narrow dissemination of high-cost data, or wide dissemination of low-cost data. We wanted the latter." Commerce Secretary Malcolm Baldrige has said that he would prefer to let the marketplace decide the open skies question but that he is basically quite willing to go along with the congressional plan. Swift passage thus seems likely.

One interesting possibility has been raised by the OTA, however. The national security community seems to have discovered the Landsat data only recently. But during the last year or so, it has suddenly emerged as one of the largest single users: the Central Intelligence Agency alone went from 440 scenes purchased in 1982 to more than 5000 in 1983. Most of the uses seem to involve nonclassified projects such as mapping and crop monitoring. But once the Landsats are transferred to the private sector, the national security community may be tempted to launch its own satellites, under government control—which means that Washington may end up paying for a separate Landsat system anyway.—**M. MITCHELL WALDROP**