

Varmus, Williams penalized

Isotopes lost-- UCSF restricts radiation rights

By Charles Piller

Synapse has learned that UCSF officials have prohibited the labs of Dr. Harold Varmus and Dr. Lewis Williams from ordering radioactive isotopes for a period of at least two weeks. The ban was spurred by separate incidents of apparent mishandling of low-level radioactive materials. In each case, isotopes are believed to have been disposed of inadvertently in the regular trash.

The punitive actions have sparked concerns on the part of some UCSF scientists that campus officials are overreacting to ongoing community and state pressure about campus health and safety practices.

The Varmus incident, which involved 3 millicuries of Sulphur-35, took place Jan. 14, and the ban on his ordering new isotopes began Jan. 19. Williams's lab is thought to have lost 250 microcuries of Phosphorus-32, a substance which emits a somewhat higher amount of radiation, on Jan. 20, according to Gerard Wong, an official with the Radiologic Health Branch of the California Department of Health Services.

The prohibition against Williams ordering new isotopes began Jan. 25, said J. Leroy Balzer, assistant vice chancellor for environmental health and safety (EHS). His department is investigating the incidents.

State and campus officials emphasized that the amount of radioactive materials allegedly lost present little if any danger unless they are swallowed --a virtually inconceivable prospect, considering that they are probably buried in a landfill by now.

"It's not something that could pose a real hazard to the general public," Wong said.

"People sometimes don't understand that amounts used in basic research are terribly small," nothing like the radiation sources in a nuclear power plant, said Dr. David Ramsay, vice chancellor for academic affairs.

Karl Hittelman, associate vice chancellor for academic affairs pointed out that UCSF receives 7,000 deliveries of radioactive isotopes per year, not including those used in the hospitals and clinics. "Therefore you have to think about the [extremely low] level of noncompliance [when considering the] potential hazard to the community," he said.

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Dr. Harold Varmus

Radiation

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According to Balzer, isotopes typically are lost about five or six times each year at UCSF.

Varmus and Williams are also prohibited from borrowing isotopes from colleagues, although they will be allowed



Dr. Lewis Williams

to continue using any isotopes they have on hand, according to campus radiation safety committee chairman Regis Kelly.

The actions by campus officials go beyond what is required by state regulators, and reflect a "get-tough" policy against irregularities in radiation handling, said Balzer.

Williams, an associate professor of medicine and a prominent member of the Howard Hughes Medical Institute, had his lab shut down by state and campus officials in Nov. 1985 for gross radiation safety violations. Balzer said that as recently as last November Williams' lab experienced a similar lost-isotope incident.

Varmus, who holds appointments in the departments of microbiology, and biochemistry and biophysics, is widely considered one of the world's foremost authorities on retroviruses --the class to which the AIDS virus belongs-- and is credited with pioneering research in that area. His lab was cited by state officials in March 1987 for a variety of radiation safety infractions related to storage, record keeping and handling.

Varmus and Williams will be required to pass a radiation safety exam and an EHS inspection of their labs before their rights to order isotopes will be reinstated. The day Williams begins reordering isotopes, Balzer added, he will additionally be required to hire a radiation health physics specialist to evaluate his lab and re-train his entire staff.

Balzer: "Foremost on our minds are the perceptions of students and people off campus."

Williams was given this special requirement, said Kelly, in part because of his past record of serious violations.

"We're attempting, through this process, to get full compliance with the regulations," Balzer said.

The radiation safety committee agreed on the sanctions only after much serious discussion, according to Kelly. Committee members were concerned about the possible adverse affect of their decision on important research, he said.

Overkill?

Williams called the administration's punitive response "bizarre." He blamed the accident on poor administrative procedures for the transfer of isotopes from the radiation safety office to the labs. And he criticized the radiation safety exam required by UCSF as too academic and abstract, with insufficient emphasis on practical radiation-handling skills.

Williams strongly objected to the implication that his lab is inattentive to radiation safety. "In '85 our lab wasn't better than other labs using this amount of

radiation, but it wasn't worse. We just got caught." Since then, he added, his lab has become "one of the safest" on campus, and spends about 15 to 20 person-hours per week on radiation safety. "The notion that we are negligent is false. I don't believe it's fair."

The inability to order isotopes will cost Williams' lab thousands of dollars in lost work time, he said. The penalty is parti-

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cularly ironic because "we detected and reported the loss so quickly," Williams said. "It's because of our attention to the problem that we are being punished."

The atmosphere created by this kind of administrative action "makes it difficult for us to work at this institution," he added. "Because we've made so much effort in radiation safety, this is devastating to the morale of the people in my group."

Varmus declined to comment, but other scientists questioned the propriety of the sanctions, particularly when imposed upon a scientist of Varmus's stature.

"Despite the potential seriousness of what happened [in Varmus's lab], it was an accident. And as it turned out, the likelihood that it would do any harm is vanishingly small," said Dr. Leon Levintow, chairman of the department of microbiology. "[The ban on ordering] interferes with important, urgent research," he added. "I think that the action was ill-considered under the circumstances."

Biochemistry and biophysics department chairman Bruce Alberts also questioned the usefulness of punitive remedies for what he considers minor accidents caused by human error that can never realistically be eliminated completely.

These recent episodes occurred against the backdrop of major health and safety-related controversies that have exasperated the campus community for the past few years.

UCSF has been fighting a protracted court battle over moving basic science labs to the new Laurel Heights campus. A local neighborhood group sued the university, claiming that the project's environmental impact report underestimates the dangers from emissions of toxic and radioactive substances from those labs into the outlying community. The case is now pending before the California Supreme Court.

UCSF, among many large biomedical institutions, is permitted by the state to self-regulate for most radiation safety requirements. In recent years the campus experienced a series of radiation safety problems. Last March UCSF was cited for 33 violations of state regulations. Only one violation was related to an actual overexposure, but several handling, storage and record-keeping citations were considered "very serious."

The renewal of UCSF's overall radiation-use permit has been held up since then, pending an agreement between the campus and the state on penalties for the 1987 citations and on a major set of reforms in the campus self-regulation program. The university has been operating on a temporary permit.

Therefore, the campus has felt tremendous pressure from state regulators and the community to improve its radiation safety record. At least as far as the state is concerned, the campus has done its job well on the Varmus and Williams cases.