epidemiologic study'' of health effects of Agent Orange on the 1200 men who handled herbicides daily for periods up to 4 years during the Vietnam War.

Other medical surveillance studies have connected dioxin exposure to increased incidence of soft tissue sarcomas, a rare form of cancer that affects fat, muscle, and nerve tissues. However, Schecter says that none of the 500 persons he is following medically has developed such tumors during the period since the Binghamton fire, although melanomas have been detected among members of the group. Young says that within the population of 85,000 Vietnam veterans being followed by the VA, only 11 compared to a predicted 16 have developed soft tissue sarcomas. He also notes that 20 rather than a predicted 15 of the veterans have developed lymphomas. The comparisons are based on expectations for a similarly aged group of American men. Young has no explanation for either finding.

It is noteworthy that soft tissue sarcomas are thought to have a long latency period, a factor that further complicates both the New York and VA analyses, and makes it all the more difficult to conclude anything yet about dioxins' role in human cancer.

Ambiguities about dioxin effects on man frequently have been matched with ambiguities in the lab. In particular, efforts to prove that dioxins (specifically, 2,3,7,8-tetrachlorodibenzo-*p*-dioxin, TCDD) causes mutations in bacteria—a widely used screening test for potential carcinogens—have not provided a satisfactory answer. Now, Alastair W. M. Hay of the University of Leeds in England and his collaborators report that this chemical causes mutations in mammalian cells cultured in vitro. ''From the evidence we have,'' Hay says, ''I believe dioxin actually has the ability to cause cancer itself . . . rather than being merely a cancer promoter.''

Hay's finding contrasts with other experimental evidence indicating that dioxins are not ''complete'' carcinogens. Despite his new and clear-cut evidence that the chemical causes mutations and growth-pattern changes in cultured hamster cells, however, little else can yet be said about how dioxins work. The mechanism for causing transformation is ''far from clear,'' Hay says. On the basis of a wide variety of experiments, there's little question these chemicals cause cancer in animals. Hay's latest work suggests it is likely that the dioxin TCDD has the potential to cause the disease in humans. ''We don't know how great that potential is,'' he says.—**JEFFREY L. FOX**

Exodus from OSTP

A wholesale change of top management is under way at the Office of Science and Technology Policy (OSTP), and presidential science adviser George Keyworth is likely soon to be left without any of his long-term senior advisers.

Victor Reis, assistant director for national security, left on 31 August to join Science Applications Inc., a consulting firm based in Arlington, Virginia.

Douglas Pewitt, assistant director for general science, has accepted a job with Western Research Corporation of San Diego. He will be leaving OSTP on 30 September.

John Marcum, assistant director for energy, natural resources, and international affairs, has been offered a job as head of the directorate of science, technology, and industry at the Organization for Economic Cooperation and Development in Paris. If he accepts—he was in Paris in early September to discuss the job—he will be leaving before the end of the year.

The only other assistant director, Denis Prager, who handled life sciences and institutional relations, left in May and has joined the Chicago-based MacArthur Foundation.

Although OSTP officials maintain that these departures are not linked, the sudden loss of every key policy adviser will do nothing to enhance OSTP's status and effectiveness in the federal bureaucracy.

—**COLIN NORMAN**

New Forum for Criticism of UC–Weapons Labs Link

University of California (UC) management of the Livermore and Los Alamos nuclear weapons laboratories has come under question from a new quarter—the state legislature. A resolution requesting that the UC regents study conversion of the labs to nonmilitary research was defeated on the Assembly floor on 29 August.

For more than a decade, the UC regents have come under intermittent pressure from UC faculty and students and from activist groups in the San Francisco Bay area to alter the contract arrangements under which UC manages the weapons labs for the Department of Energy (DOE), which owns them. The Assembly vote on the resolution was the first time, however, that the university's ties with the labs has been the subject of formal action in the legislature. The resolution, which fell six votes short of the 41 to pass, was the initiative of Assemblyman Tom Bates who represents the Oakland-Berkeley district.

Livermore was also in the news in June when protesters attempted to blockade entry to the Livermore lab, which is about 40 miles east of San Francisco. Demonstrations had been held at Livermore before, but the blockade attempt, which led to about 1100 arrests, was the most serious confrontation to date.

The encounter at Livermore in June appears to mark a shift in tactics by opponents of the UC link with the laboratories. In the past, the most active opposition came from a coalition of antiwar, religious, and student groups who sought to influence regents' policy on the labs through sit-ins, demonstrations, and appeals to public opinion.

In the blockade in June, the impetus came from a new organization called the Livermore Action Group, which changed the focus of efforts from influencing the regents and university administration to direct action at Livermore, using civil disobedience techniques. They decided that a resort to direct action was indicated after the regents in 1981 decided to renew for 5 years the UC management contract with DOE scheduled to expire in 1982.

The labs issue for the regents had been relatively dormant until the Assembly resolution. Wording of the Bates resolution was fairly mild, requesting essentially that the regents make a year-long study of converting the labs to civilian research, and asking the regents to "Seek public input from as broad a spectrum of concerned citizens as possible."

If passed, the resolution would have been nonbinding, since the regents' legal responsibility over the labs is clear. Bates says that his intention in pushing the resolution was to highlight university involvement in nuclear weapons development.

The regents' most serious recent bout over the labs occurred in 1979. The UC connection with the weapons

lab was then a topic of controversy and then-Governor Jerry Brown became an advocate of severing the university's connection with the labs. A Brown proposal that would have brought such a change, however, was rejected by the regents. There has been no real test of regents' attitudes on the issue since Brown was replaced by Governor George Deukmejian and UC president David Saxon by David Gardner, neither of whom have declared themselves on the matter.

The subject, however, was raised recently in an awkward way for the regents. In March the regents received a letter frm the widow of physicist E. O. Lawrence requesting that Lawrence's name be removed from the name of Livermore lab, which is formally called the Ernest Orlando Lawrence Livermore National Laboratory. Mary B. Lawrence wrote that she feels that E. O. Lawrence's hopes that nuclear weapons would prove a successful deterrent to war and nuclear energy a source of cheap and plentiful power have been disappointed and that if he were alive now Lawrence would be distressed that his name was associated with the nuclear weapons laboratory. Evidently embarrassed, UC officials replied that the regents did not have jurisdiction over the lab name and suggested she take up the matter with the appropriate federal authorities.—**JOHN WALSH**

Texas A&M Gains a Nobel Prizewinner

Norman E. Borlaug, who won the 1970 Nobel Peace Prize, has decided to join the faculty of Texas A&M University. Texas A&M, which has been rapidly building up its research programs and trying to establish itself as a major research university, is jubilant. "His decision to continue his important research here represents a major step forward in our quest for preeminence and recognition as a world university," says A&M's president, Frank Vandiver.

Borlaug, 69, a plant geneticist whose work on high-yielding wheat varieties underpinned much of the so-called Green Revolution, will hold the title of Distinguished Professor of International Agriculture. He is presently on the staff of the International Maize and Wheat Improvement Center near Mexico City.

Texas A&M has been assiduously courting another Nobel prizewinner, physicist Sheldon Glashow, so far without success.—**COLIN NORMAN**

Charles River Responds to Lawsuit on Impure Mice

Attorneys for Charles River Breeding Laboratories filed their answer on 19 August to the lawsuit brought by University of Wisconsin researcher Brenda Kahan (*Science*, 12 August, p. 625). She alleges that the company supplied her and her collaborators with genetically contaminated mice, thereby invalidating some of their research.

In its first detailed rebuttal, Charles River denies that it "at any time made any knowing false representation" to Kahan when it sold her BALB/c mice, and also denies "any discovery by [the company] of any genetic defect in BALB/c mice at any time material to the allegations."

The Charles River attorneys also say that in using the shipments of mice Kahan alleges were genetically contaminated, she "assumed the risk of any disparity in genetic makeup from those that she had been using" in previous experiments. The company attorneys also argue that the "importance of genetic purity of inbred animals is not essential to . . . research in many instances."

The Charles River attorneys say Kahan waived any rights to a claim against the company when she requested more of the mice "after having become aware of the alleged contamination." Thus, that and her "failure to promptly notify" the company are being cited by the attorneys as reasons to deny her claim for damages. Furthermore, they say, there was no legal contract between the company and Kahan, but between it and the University of Wisconsin, where she works. Damages, "if recoverable at all," would go to the university, not to Kahan, they argue. The university intends to file a suit of its own, similar to Kahan's, which already is raising some novel legal issues.

—**JEFFREY L. FOX**

French Embassy Gets Social Science Attaché

The French Embassy, which has an unusually large scientific staff, has become the first to appoint a social science attaché—Laurence Ratier-Coutrot, a sociologist from the Centre National de Recherche Scientifique.

Ratier-Coutrot is currently finding her way around the American social science landscape and notes the scale of things are rather different here—the American Sociological Association, for example, has 14,000 members, compared with 400 in its French counterpart.

Among her plans is to organize meetings between French and American scholars to compare the two nations' approaches to equivalent subjects. Ratier-Coutrot says she hasn't identified any major intellectual differences between France and the United States, but is looking for a "big intellectual event" comparable to the birth of policy research here a decade ago.—**CONSTANCE HOLDEN**

IOM Launches Study of NIH

The Institute of Medicine has launched a study of the structure of the National Institutes of Health which NIH officials hope will resolve the question of whether more disease-oriented institutes should be added. IOM panels will review organizational changes at NIH during the past 15 years, its current structure, and alternative patterns of research funding. The IOM will hold an open hearing in Washington on 26 and 27 September. The committee is headed by James D. Ebert, president of the Carnegie Institution of Washington.

Its members are: Steven Beering, Purdue University; Baruj Benacerraf, Harvard; William Bevan, the MacArthur Foundation; Stanley Cohen, Vanderbilt University; Maclyn McCarty, Rockefeller University; Thomas D. Morris, Washington, D.C.; George E. Pake, Xerox; Don K. Price, Harvard; David Saxon, M.I.T. Corporation; Margery W. Shaw, Health Law Institute, Houston; Howard E. Simmons, DuPont; Samuel O. Thier, Yale; Joseph F. Volker, University of Alabama, Birmingham; and Washington attorney Adam Yarmolinsky.—**BARBARA J. CULLITON**