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9. However distasteful such concealment is, it was a necessary first step to examining these questions. Without concealment, there would have been no way to know how valid these experiences were; nor was there any way of knowing whether whatever detections occurred were a tribute to the diagnostic acumen of the staff or to the hospital's rumor network. Obviously, since my concerns are general ones that cut across individual hospitals and staffs, I have respected their anonymity and have eliminated clues that might lead to their identification.
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NEWS AND COMMENT

AAAS Council Meeting: Vietnam Resolutions; Bylaws Voted

In an unprecedented expression of political sentiment, the governing council of AAAS adopted a strongly worded resolution in its business meeting of 30 December condemning the United States' continued involvement in the Vietnam war and the application of American science and technology to the "wanton destruction of man and environment."

The council passed a second war-related resolution urging Congress to support a major study, by the National Academy of Sciences, of the war's impact on the people and the environment of Indochina. At the same time, the council in effect voted its own termination by approving a new and much-discussed set of bylaws that will drastically reduce the size of the council and allow the general membership of the AAAS to elect it. The AAAS thereby completed what former chairman of the board Mina Rees and chief executive officer William Bevan called "a major step toward becoming a genuine membership organization."

The council's antiwar resolution was the first in which the AAAS has taken an unqualified stand in opposition to U.S. military involvement in Vietnam. Past councils have limited themselves to expressions of "concern," particularly about the adverse effects of defoliants.

This year's bluntly phrased resolution was introduced as an "emergency motion" by seven council delegates, including Everett Mendelsohn, a Harvard historian of science and a AAAS vice president, and E. W. Pfeiffer, a University of Montana zoologist who was instrumental in arousing the association's interest in the herbicide issue several years ago.

During a brief debate, the resolution was modified slightly at the suggestion of Lewis M. Branscomb, the former head of the National Bureau of Standards and now the IBM Corporation's chief scientist. Branscomb urged that two critical references to U.S. military activity in Thailand be deleted, on the grounds that the American presence there was not analogous to U.S. involvement in Vietnam. The council consented, and the midified resolution carried by a vote of 80 to 41 with a large but uncertain number of abstentions, including those of Glenn Seaborg, the former chairman of the Atomic Energy Commission, and others seated at the dais. Only about 170 of the council's approximately 530 members were present.

The full text of the resolution is as follows:

The Council of the AAAS condemns the United States' continued participation in the war in Vietnam, heightened in the post-election bombing escalation.

As scientists we cannot remain silent

while the richest and most powerful nation of the twentieth century uses the resources of modern science to intervene in the problems of poor and distant lands. Our Association objective "To increase public understanding and appreciation of the importance and promise of the methods of science in human progress" compels us to refute the view that scientists and engineers are responsible for and endorse, by their actions or by their silent consent, the wanton destruction of man and environment, in this case through warfare.

The Council of the AAAS urges an immediate cessation of hostilities and an immediate withdrawal of all U.S. armed forces from Vietnam, Laos, and Cambodia.

The second war-related resolution put the AAAS on record as supporting in principle the proposed "Vietnam War Ecological Damage Assessment Act," introduced in the last session of Congress by Senator Gaylord Nelson (D–Wis.) and Representative Gilbert Gude (R–Md.). The bill, which Nelson moved quickly to reintroduce, would require federal agencies to cooperate with the National Academy of Sciences in a large-scale assessment of the effects of "carpet bombing," the use of antipersonnel CS gas, and the bulldozing and defoliation of large forest tracts in Vietnam, Laos, and Cambodia. The AAAS resolution urged an evaluation of both "constructive and destructive" effects of "American science" in Indochina, but, Pfeiffer commented, the latter is presumed to vastly outweigh the former.

Others, among them Leonard Rieser of Dartmouth, the AAAS president envisioned the academy study as only the first step in a prolonged evaluation of the war's impact on Indochina. Rieser, for one, suggested that the government establish a permanent organization similar to the federally supported Atomic Bomb Casualty Commission, which has spent the past 25 years observing the long-range medical effects of the atomic bombing of Hiroshima and Nagasaki. The Washington *Post* quoted Rieser as saying that such a study was vital to the intelligent rehabilitation of Vietnam and may be the only means of learning the truth of many allegations, such as the charge that the spraying of herbicides by the United States has caused birth defects in Vietnamese children.

The subject of herbicides in Indochina led some council members to wonder what had happened to the AAAS's own study of ecological damage in Vietnam, for which the association paid $80,000. The answer seems to be that the final report of the AAAS Herbicide Assessment Commission will be out sometime this summer in manuscript form, 2½ years late.

In December 1969 the AAAS board appointed Harvard biologist Matthew Meselson to head the commission and to prepare a detailed report on the effects of the military defoliation campaign. Meselson and four other scientists subsequently made a 5-week inspection tour of South Vietnam, in the summer of 1970, and carried out a review of the pertinent literature.

The team's preliminary findings, embodied in an 8-page summary and 48 pages of background material, were reported to a widely publicized news conference at the AAAS meeting in Chicago in December 1970. The board expected to see a final report about 2 months later, but so far only the brief summary and backgrounder have appeared in print, and even then only in congressional documents (see *Congressional Record*, 3 March 1972).

In a telephone conversation last week, Meselson blamed the delay on his "full teaching load" and on his decision to include much more background information in the final report than he had originally intended. Meselson also said technical problems had slowed the analysis of biological samples—among them mothers' milk and fish—for herbicide residues and metabolites. He said he hoped that the manuscript could be finished "by summer" and be in book form by fall.

In the meantime, some board members are said to be "impatient" with the delay, what with the prospect that the scientific impact of the AAAS study may be overwhelmed by the academy's 2-year, $1.5 million evaluation of herbi-

Training Grants, Peer Review in Peril?

The training programs that the National Institutes of Health (NIH) supports are treasured by most members of the biomedical community. Many are fond of calling these programs the "life's blood" of science. President Nixon and members of his Administration do not share the view that existing training programs constitute the best way of supporting young investigators and paying faculty salaries. According to Washington's ubiquitous "highly placed sources," the President plans to phase out the NIH training programs. The word, from persons who claim to know what his soon-to-be-released 1974 budget contains, is that, within 2 years, training programs will be either wiped out or so diminished as to be virtually worthless.

The prospect of the abolition of these training programs has aroused the biomedical community. Telegrams protesting the alleged budget-slashing have been sent to the White House and members of Congress by a number of groups, including the prestigious American Society for Clinical Investigation (ASCI) and the elite Association of Professors of Medicine. The ASCI declares that "the very health of the American people is at stake."

The NIH training grant program apparently has been unpopular with officials in the White House's Office of Management and Budget (OMB) for at least a couple of years now. Their argument generally runs to the effect that there is no reason the government should pay to educate doctors so that they can then go out and make a lot of money. They would prefer to support young sicentists through research grants.

In the past, last-minute pressures have succeeded in keeping the training grant program intact, and many persons in the academic world are hoping they can save the program once again.

While the apparent threat to training grants looms in the form of a clear-cut matter of budget-cutting, a less clear and present danger to the traditional way the biomedical community conducts its business lies in the prospect of a revision of the peer review system for approving research grants. Generally, scientists feel comfortable with this system (*Science*, 12 January), but White House efficiency experts reportedly are less happy with it. Recently, for example, one member of the inner circle at the White House was heard to ask, "What are they doing with all those committees out there?"—apparently referring to study sections and other advisory committees at NIH.—B.J.C.

cide effects in Southeast Asia. The academy hopes to release its study in September.

For some, the council meeting's most momentous decision, if not its most dramatic, was the completion of an important phase in a long process of democratizing the association's internal affairs. At the 1971 meeting in Philadelphia the council adopted a new constitution that now allows the general membership to elect the AAAS president and the board of directors. The newly adopted bylaws put the constitution fully in force and extend

Briefing

Another "Populist" President-Elect for ACS

The populist uprising that emerged 2 years ago from the staid body politic of the American Chemical Society seems to have acquired a life of its own. For the second year in a row the ACS has chosen a dark horse president-elect who got himself on the ballot by popular petition and unabashedly campaigned for the job on a platform of "professionalism," vowing to turn the society's energy and influence more toward the employment problems of the industrial chemist.

The new president-elect is Bernard S. Friedman, 65, an organic chemist who spent most of his career with Sinclair Research Laboratories, Inc., before moving to the University of Chicago in 1969. A tally of mail ballots gave Friedman 45 percent of the 38,000 votes cast by the society's 100,000 members. The balance of the vote was split by the two candidates picked by the traditional nominating committee; they were Milton Harris, a widely known independent consultant, and Henry Hill, president of Riverside Research Laboratories, Inc., in Haverhill, Massachusetts. Ironically, Hill also ran on a professionalism platform. Friedman's lopsided margin may be attributed to his endorsement by the incumbent president, Alan C. Nixon, the progenitor of the populist movement (*Science*, 21 April 1972).

In a postelection statement, Friedman said he intended to carry out a "mandate" from the society's membership to increase ACS professional relations activities while keeping it "strong and progressive as a learned society."

More than 70 percent of the ACS's members are industrial chemists and several thousand of them have lost their jobs as one corporation after another pared its scientific staff during the past 2 years. Nixon (no relation to the President) says the industrial layoffs are continuing, though seemingly at a slower pace than in the recent past.

As unemployment rose it produced sharp divisions within the ACS between those who felt the society could do much more than it was doing to protect the livelihood of its members and those who regarded the task as both futile and inappropriate for a learned society.

It appears, however, that the professionalism movement that rallied around Alan Nixon—and that Friedman will inherit at the end of 1973—has now gained the upper hand. In addition to the president-elect, all four of the new ACS directors elected by the membership have indicated a strong interest in professional relations activities, and Nixon counts a majority of the 15-member board in his camp.

Votes aren't everything though. The ACS is having trouble scraping together enough money to carry out Nixon's ambitious Professional Enhancement Program (PEP), a combination of several efforts to connect unemployed chemists with vacant jobs and to compile a "blue book" of information on job security and working conditions in industry. Last April the ACS sent out a mail solicitation to its members in hopes of bringing in as much as $1 million for PEP. So far the take has barely topped $60,000 and may not reach $250,000. Professional fund raisers have since advised the ACS that it can't expect much more than that from a random solicitation, and Nixon is now looking to a proposed dues increase to inject some vigor into PEP.—R.G.

Back at NIH, Marston's Firing Prompts Mild Protest

President Nixon's dismissal of Robert Q. Marston as director of the National Institutes of Health (NIH) has drawn a rather circumspect protest from an organization of NIH researchers whose personal fears about the implications of the firing run far deeper than the tone of their protest suggests.

In a letter to the President, the members of the NIH Assemblies of Scientists said they regretted the "unprecedented forced resignation" of Marston, whose leadership, they said, has allowed the NIH to continue to lead the world in basic and clinical research. They urged the President to select a replacement who is not only administratively adept, but who has stature in the fields of basic and clinical research as well. The assemblies is an organization of clinicians and researchers that is independent of the NIH administration. Formed to discuss both scientific and social issues, it has been likened to an unofficial faculty club. About 1000 of the 2200 physicians and scientists at the NIH belong.

In another attempt to cope with Marston's surprise firing and the possible changes in NIH's administrative hierarchy that might ensue, a band of NIH scientists of no official coalition have written to Robert W. Berliner, urging him not to resign. Berliner, who, as deputy director for science, was one of Marston's two top aides, is seen by some NIH researchers as the man who stands between them and the utter collapse of support for basic research. Berliner is the one to whom many now look to defend the value of basic research to a new director, who they fear may lack what they consider the proper respect for that enterprise.

In firing Marston, the President made it perfectly clear that the directorship of the NIH will no longer be set apart from other positions that fall in the category of political appointments. NIH scientists and those in the biomedical community at large have consistently believed that the head of the NIH should be chosen on purely scientific grounds, untainted by political considerations. Understandably, they are having a hard time coming to grips with the possibility that this special privilege, long enjoyed, may no longer prevail. (Technically, the NIH directorship be-

the privileges of the membership to include election of the council, which is the association's chief policy-making body.

The bylaws' leading feature is a system of proportional representation of the membership, arranged along lines of scientific discipline. During the past year, the system has evolved considerably from its original conception.

As initially proposed, the bylaws would have clustered the AAAS's 21 scientific sections, ranging from astronomy to zoology, into five to ten "electorates" for the purposes of

came a presidential appointment under the cancer act of 1971.)

Now, as never before, the President is running the show at NIH, and it has left biomedical researchers somewhat confused because they do not know how, or even whether, they can have any input in the process of choosing a successor to Marston. Apparently, that accounts, in part, for the mild nature of the protest letter. "We know the President is going to call the shots, and it is not to our benefit to antagonize him and it wouldn't be to the benefit of health either," Robert Adelstein has been quoted as saying. Adelstein is a leader of the assemblies.

The process of finding a replacement for Marston, whose ouster came as a particular surprise in view of his reputation for being a team player (*Science*, 22 December 1972), is under way, but no one knows how long it will take. The search is being conducted out of the office of Frederic V. Malek in the White House, Malek being the man who has been the Administration's chief recruiter for the last couple of years. Within the next few weeks, however, Malek may transfer to a new position as second in command in the Office of Management and Budget.

Given the President's avowed intent of reorganizing and streamlining the government, there is every reason to believe that the person who takes Marston's place will have to be long on managerial talent. It is also likely that his loyalty to the President will be a matter of no small importance. One theory offered to explain the President's dismissal of Marston is that he wants the leaders of federal agencies to be loyal to him first and foremost, rather than to their constituents. If that reasoning is correct, Nixon will be looking for a man whose allegiance to the White House is greater than his allegiance to science.

Various women's organizations have seized the opportunity to try to get a woman in the NIH post by submitting to the President the names of women who have both an M.D. and a Ph.D. to their credit. One list, for example, sent to Nixon by Julia T. Apter, M.D., Ph.D., of Rush Medical College in Chicago, is 18 names long.

If Malek's team follows the course it has taken in recruiting for other federal jobs, it will range widely for names of candidates before picking the winner. The pool, therefore, may not be limited to members of the scientific establishment. On the other hand, it is unlikely that Malek's people will go out of their way to pick somebody thoroughly unacceptable to the establishment. Two people who almost certainly will be proposed to the recruiters, however, do come from that group: Donald S. Frederickson, scientific director of the National Heart and Lung Institute, and Ivan Bennett, Jr., vice president for health of the New York University School of Medicine. According to Washington insiders, either man is a plausible choice. But, as has been pointed out before, there are few Washington insiders these days, and the real answer to speculation about Marston's successor is that nobody knows.—B.J.C.

A. D. Little, Inc., Wants to Grant Degrees

It seems safe to say that the system of higher education in the United States is going to have to change somewhat if it is going to satisfy everybody's needs. Certainly Arthur D. Little, Inc. (ADL), the Cambridge management consultant and research outfit, thinks so. A year ago, ADL, a private, profit-making organization, petitioned the Commonwealth of Massachusetts for authority to become a degree-granting institution. Specifically, ADL wants to award a master's in management sciences. By the end of this month, it should know whether or not it can.

As far as could be determined, ADL is the first proprietary organization in the country to seek graduate degree–granting privileges on its own—there are university-affiliated programs here and there—and if its petition is accepted, it may be quite a precedent-setting document.

According to Arthur Corozini, vice chancellor of the Massachusetts Board of Higher Education, if ADL is permitted to grant a higher degree, other proprietary institutions, such as 2-year business and technical schools, will also seek degree-granting status. At present, these schools give certificates.

As Corozini explained it, ADL's petition to the state was turned over to the board of higher education for action. In keeping with usual procedure, he then named a visiting committee to investigate the matter. It took into consideration such factors as the quality of the education program at ADL and its fiscal resources. The committee's report, more than 6 months in preparation, is about to be submitted to the board. If it is favorable to ADL, as is anticipated in some quarters, there will be a public hearing before final, favorable action is taken.

Complex questions are raised by the prospect of proprietary institutions awarding higher degrees. How, or should, such degree programs be monitored by the state? Must they include general as well as specialized courses? What, if any, mechanisms must be set up to protect students from schools going out of business. What about academic freedom and tenure for faculty members? Obviously, none of these issues will be easy to reslove, but at least some considered opinions will come to light when the committee's report and the board's reaction to it come into full public view within the next few weeks.—B.J.C.

voting. That plan, however, ran afoul of council opposition, particularly from the smaller sections; they feared an unfair domination by colleagues in more populous disciplines.

As a result, the AAAS will remain divided along sectional lines both for scientific and voting purposes. The bylaws now designate each section an electorate; each electorate will have one council seat for each 3000 of its members, with a minimum of one seat for sections with fewer than 3000 members.

The most immediate effect of the new electoral system will be to trim the council to about 100 members after the coming general election in the fall. Thus the AAAS's form of governance will have shifted toward the representative end of the spectrum; whether new faces and new directions in policy emerge is another question, and one that will have to await the elected council's first meeting, at San Francisco in February 1974.

—ROBERT GILLETTE

Truman Era: Formative Years for Federal Science

The obituaries of former President Harry S Truman quite reasonably emphasized the fateful decisions he made which resulted in the use of the atomic bomb, the Truman Doctrine and the Marshall Plan, NATO, the development of the hydrogen bomb, and the commitment of American forces in Korea. These decisions were based on a view of the world which influenced the major lines of American foreign policy for two decades and is only beginning to be modified as Cold War diplomacy bends toward détente. Much the same sort of thing can be said of postwar relations between science and government. It was during Truman's presidency that wartime cooperation between scientists and the military was institutionalized. Of the new civilian science agencies, the most symbolic though not the first was the National Science Foundation. Now there are signs that these established relations too are being reappraised and revised.

The watershed issue in postwar science policy was probably the debate over the control and development of atomic energy immediately after the war. Even before the atomic bombs were dropped on Japan in August 1945, scientists in government service were expressing concern about nuclear policy after the war. Nils Bohr, James Franck, and Leo Szilard were leaders among those who argued that only effective international control of atomic energy could avert a dangerous arms race between the United States and the Soviet Union.

Barely 2 months after the war ended, Congress plunged into debate on the issue of a domestic policy for atomic energy. A bill had been hurriedly framed and was introduced by Senator Edwin Johnson and Representative Andrew May. The key issue almost immediately became the choice between military or civilian control. The May-Johnson bill was an Administration measure, but by the end of the year Truman had reexamined his position and from then on unwaveringly backed a bill introduced by a close friend from his Senate days, Brian McMahon, which placed authority in a civilian-dominated Atomic Energy Commission. Scientists from wartime laboratories had rapidly organized the Federation of American Scientists and lobbied effectively in the cause of civilian control. Their efforts contributed significantly to the passage of the McMahon Act, but that success had a price that could not have been accurately counted at the time. During the debate, Representative J. Parnell Thomas of the House Un-American Activities Committee had charged "subversive" tendencies among scientists in government labs. For scientists, this questioning of their loyalty was to trouble the universities as well as the government, to reach a crescendo during the McCarthy era, and to culminate in the lifting of J. Robert Oppenheimer's security clearance after hearings before the personnel security board of the Atomic Energy Commission at the beginning of the Eisenhower Administration.

Within a year after the end of the war, efforts to establish effective international control of atomic energy had foundered. Increasing tensions between the United States and the Soviet Union had made impossible the creation of a sort of international atomic energy commission as had been proposed. Although Truman himself was aware that the science relevant to the making of fission weapons could not be kept an American monopoly, he consistently resisted sharing research, technology, or materials related to nuclear weapons with foreign powers, even allies.

Truman's attitude toward science was the rather uncritically approving one prevailing at the time, and he supported the idea of a National Science Foundation advanced by Vannevar Bush in the famous blueprint for postwar science, *The Endless Frontier*, published in 1945. Under the circumstances it seems surprising that legislation creating the NSF was not finally enacted until 1950.

Controversy Surfaces

Controversy surfaced when the first bill embodying the Bush formula was introduced in 1945 by Senator Warren Magnuson (D–Wash.). Bush favored a strong National Science Board (NSB) formed primarily of nongovernment scientists who would exercise strong control over the director and the work of the foundation. Another view with which James B. Conant, Harold Urey, and Edward U. Condon were identified held that the head of the foundation, responsible to the President, should exercise primary control with the NSB acting in the conventional advisory capacity. Other questions raised at the time—on ownership of patents resulting from government-supported research and on geographical distribution of research funds, for example—became chronic issues.

In 1947, after efforts to achieve consensus appeared to succeed, Congress