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## NEWS AND COMMENT

# The American Chemical Society: PEPping Up Its Rescue Efforts

The American Chemical Society (ACS) will ask its 100,000 members to donate a minimum of \$10 apiece to a new "emergency" fund that the ACS is setting up to alleviate unemployment among the nation's chemists and chemical engineers. The ACS has not decided precisely how to spend the money it hopes will come pouring in, but the society's Washington staff is drawing up a shopping list of programs that range from direct financial assistance for down-and-out chemists to alerting legislators to the plight of unemployed scientists and engineers. Alan C. Nixon, the maverick president-elect of the ACS and the man who instigated the plan, says he hopes that the contributions will reach \$1 million, and he says he'll be "very disappointed" if the total is under \$500,000.

The society's 460-member repre-

sentative council approved Nixon's unusual plan by a 4 to 1 margin during the national meeting of the ACS last week in Boston. The council's overwhelming consent provides some measure of the severe internal pressures that are forcing ACS to take a livelier interest in the job security of its members, what with 3000 of them out of work, another 6000 thought to be "mal-employed," and even more June graduates than last year still scrabbling for jobs. Council approval for the solicitation of funds also amounts to a victory—and poses a new challenge—for Alan Nixon and the emerging populist party of worried chemists who have rallied around him under the banner of "professionalism," a term that connotes greater involvement by traditional scientific societies in employer-employee relations.

Nixon has been an amiable gadfly in ACS politics for years, known for needling the society's leadership for what he felt was a preponderance of influence by happily tenured academics and secure industrial managers and a dearth of representation for the industrial bench scientists like himself, who make up two-thirds of the ACS membership. In happier times, Nixon was at best a minor force in the society's affairs. But in the wake of more than a score of major industrial layoffs in 1969–71, his complaints have struck an increasingly responsive chord among a traumatized membership. Last year, Nixon got himself on the ACS presidential ballot by popular petition and, in the largest vote in the society's history, handily beat two academic candidates chosen by the traditional nominating committee.

Although he doesn't assume the presidency until next January, Nixon considers his mission too urgent to wait. Besides, his election gave him a 3-year term on the society's influential board of directors, along with considerable access to the time and energy of the Washington headquarters staff, and he seems anxious to take full advantage of it all. Thus, 8 months before his inauguration, he's in the difficult position of

trying to deliver on his campaign promise—to turn the ACS into something of an advocate for the professional chemist.

Alan Nixon's program, as it has evolved to this point, covers a large spectrum of ideas that are as ambitious as they are imprecise. To some extent, the members themselves will be able to join in the process of winnowing and defining when the solicitation letters go out. One informed ACS staffer says that the letter will probably include a list of tentative plans upon which ACS members may check their preferences, much as if they were giving to the United Fund. (Timing of the fund drive has not been decided, however.)

Nixon calls his self-help plan for chemistry the "Professional Enhancement Program," which yields the acronym "PEP." Heading the list of PEP proposals are several that involve direct financial support to unemployed members of the ACS, though not, presumably, in a way that conflicts with the Internal Revenue Service's definition of a not-for-profit organization. Among these ideas are an income insurance plan, subsidies for short courses in continuing education, and support for planning a program to subsidize "disadvantaged" colleges with 1- or 2-year professorships to be filled by unemployed chemists. Another proposal for direct assistance would set up a fund for interest-free loans to financially pressed members to prevent mortgage foreclosures or pay insurance premiums for a brief time.

Obviously, a million dollars could be sunk into direct-aid programs for chemists without a ripple of improvement in the job situation. With this in mind, Nixon is anxious to invest the bulk of his emergency fund in programs likely to confer more general benefits. Thus, PEP might involve expanding employment services already offered by the ACS, which now consist mainly of free job-wanted ads in *Chemical and Engineering News* and an employment clearing house that operates at national meetings to connect open jobs with available chemists. More money might be invested in job counseling services. And Nixon would like to develop an "unemployment survival kit" to instruct out-of-work members in the fine art of job hunting and résumé writing.

At the same time, money from the ACS war chest might be used to organize a team of "professional relations investigators" who would study the circumstances of industrial layoffs.

Barbara J. Culliton has joined the *Science* news department. She was previously a member of the staff of *Medical World News* and worked in the magazine's Washington, D.C., office.

Nixon has also talked about establishing a rating scale to rank corporations according to the job security they offer, their fringe benefits, and generally, he says, according to "the way they treat chemists." A related activity under PEP would be more national manpower studies of the kind the ACS now produces several times a year. Nixon and others at the ACS are also thinking about sponsoring new public relations programs—including films and press seminars—to communicate the importance of chemistry to society. While this would have little direct bearing on employment problems, Nixon says it would serve PEP's secondary purpose of trying to counteract public disenchantment with science and technology. The theory is that federal support for

research goes hand-in-hand with public sentiment toward science.

Potentially the most controversial features of Nixon's PEP proposals are the ones that suggest the ACS might spend some of its members' donations for "government contact work" to influence science policy. If this sounds like lobbying, it is and it isn't. ACS staff members, conscious that overt lobbying would jeopardize the tax-deductibility of dues and donations paid to the society, prefer to speak of "educational activities." For his part, Alan Nixon says that "lobbying has a bad name from the way some people practice it." He thinks that a little advocacy in the halls of Congress for the benefit of chemistry isn't necessarily unbecoming.

"We could provide information and backup support for legislators and identify legislation at the state and federal levels that deserve support," he says. What he has in mind goes beyond plumping for aid to distressed chemists; Nixon believes the society could also do more to marshal supporting information or testimony for public health and environmental legislation.

## New Cancer Chief in the Wings

It is likely that virologist Frank Joseph Rauscher, Jr., will replace Carl Baker as director of the National Cancer Institute (NCI), thereby assuming responsibility for making a success of the much heralded national commitment to the conquest of cancer through intensified and coordinated research. President Nixon is expected to make the announcement of the change in command any day, although at this writing the White House has not yet decided precisely when official word will come and responds with the familiar "no comment" to all inquiries.

Rauscher, who would be the second Ph.D. to head the institute (other predecessors were M.D.'s), is best known in scientific circles for his discovery, in 1962, of the Rauscher leukemia virus. The agent, which is relatively pure, induces cancer in mice and rats quickly (within 12 days) and has become one of the standard model systems for study of tumor viruses, chemotherapeutic agents, and the like. Rauscher is also known among his colleagues as the "man with the money," a title he assumed when he became the NCI's Scientific Director for Etiology in 1969. Last year, the NCI dispensed some \$80 million for etiological research, 55 percent of it going to studies of the relation between viruses and cancer.

The NCI, which is currently an "agency" in the federal bureaucracy, will probably move up the ladder a rung in July when it is expected to be promoted to bureau status, becoming the National Cancer Bureau, a charmless name. As such, it will have greater independence within the National Institutes of Health and, therefore, presumably will be in a better position to foster progressive and productive research with a minimum of red tape. Indeed, the whole point of the new cancer effort is to get things done efficiently, to set programs into motion without the usual delay inherent in sending plans through endless channels. Rauscher, first off, is going to have to show that he can meet that challenge.—B.J.C.

## Dow Redefines Word It Doesn't Like

Teratogenicity is an unpopular word at the Dow Chemical Company. Ever since the thalidomide tragedy, the public has reserved a particular horror for any chemical suspected of causing congenital malformations. Recently Dow has had the misfortune to have one of its best selling herbicides, 2,4,5-T, found teratogenic by scientists working under contract to the federal government. The discovery eventually led to the cancellation of certain uses of 2,4,5-T by the Environmental Protection Agency.

Suspicion of teratogenicity was also cast on a related herbicide, 2,4-D. The original study indicated that 2,4-D is teratogenic in mice and a more recent experiment, by K. S. Khera and W. P. McKinley, indicates that it also causes fetal abnormalities in rats. Dow scientists decided to repeat the Khera-McKinley experiment, but, unfortunately for Dow and 2,4-D, got similar results. So they published a paper saying that 2,4-D is not teratogenic. How can a teratogenic substance not be teratogenic? Easy—you redefine teratogenesis.

Teratogenic means the property of causing any kind of congenital malformation in the fetus. Naturally there are differences of opinion as to what constitutes an abnormality and what is within the limits of normal variation. But that apart, there is broad general agreement as to what the word means.

The Dow chemists—B. A. Schwetz, G. L. Sparschu, and P. J. Gehring—have redefined teratogenicity as “that degree of embryotoxicity which seriously interferes with normal development or survival of the offspring” [*Food and Cosmetics Toxicology* 9, 801 (1971)]. This means that none of the minor deformities caused by 2,4-D in rat fetuses—such as underweight, subcutaneous swelling, delayed formation of bone, and the growth of ribs in the lumbar region—count as terata, and therefore Dow's fast selling weed-killer is not teratogenic, according to Dow's definition. Even a chemical that caused a highly disfiguring deformity would not be considered teratogenic by the Dow chemists unless it “seriously interfered with” development or survival.

Although there might be a scientific case to be made for tightening up the definition of teratogenesis, this is not the reason for the Dow scientists' attempt to refashion the English language. Public relations is the motive. B. A. Schwetz, leader of the Dow team, explained to *Science*, “If you tell congressmen or laymen or housewives that a compound is teratogenic they would think that here is something very serious that we should not be exposed to. Every compound labeled teratogenic, they assume, must be as bad as thalidomide.” The Dow redefinition, Schwetz said, is intended to remedy this unfortunate reaction or, as he put it, “Out of this will come an attempt to inform the general public that teratogenicity is not teratogenicity, if you see what I mean. There are degrees of teratogenicity.”

In fairness to the Dow chemists, several of the specific deformities caused by their herbicide might not be considered evidence of teratogenesis, even under the usual definition. Delayed ossification, for example, is not abnormal if it is only delayed. But lumbar ribs, also caused by 2,4-D, is a teratogenic effect. Two leading authorities consulted by *Science*, J. Warkany of the Cincinnati Children's Hospital and Clarke Fraser of the McGill Department of Genetics, Montreal, said they disagreed with the proposed new definition. “There's no need to redefine the word—why mess around?” said Fraser.

Redefining words to suit the convenience of a special interest group can have untoward consequences—indeed George Orwell wrote a book about them. But perhaps there is something to what the Dow chemists propose. If teratogenesis is to be sanitized and put out of common use by reserving the word only for thalidomide-type disasters, then perhaps the same might be done for Dow, a word which, in many people's minds, is associated with the manufacture of napalm.—N.W.

As it turns out, “government contact work” is not entirely new to the ACS. During the past year or so, several society officials have been quietly plugging for federal support of internships in government and private laboratories as a stop-gap means of alleviating scientific unemployment. In March 1971, last year's ACS president, Nobelist Melvin Calvin, suggested two such programs to the President's science adviser, Edward E. David, Jr. In September, the White House announced the initiation of a \$3 million internship project to provide jobs in federal labs for 400 to 500 unemployed scientists and engineers.

This year, the ACS is asking the Labor Department, the National Science Foundation, and science adviser David to establish a special intern program for up to 1500 jobless chemists and chemical engineers. The ACS plan would have the government paying part of the salaries of the interns, who would work in industrial labs. According to a proposal it made last month, the ACS would administer this program.

A similar concept is embodied in a bill called the Scientific Manpower Act of 1972 (H.R. 14298), introduced on 11 April by Representative Ronald V. Dellums (D-Calif.). Modeled after a bill introduced in the California Assembly last year at the behest of American Chemical Society's California sections, the Dellums measure would set up an Office of Scientific Manpower in the Labor Department to administer stipends of up to \$700 a month for unemployed scientists, who would work in excess federal laboratory space. By no coincidence, Dellums comes from Alan Nixon's hometown of Berkeley.

One might reasonably ask at this point why an organization with a \$30.3 million annual operating budget finds it necessary to buttonhole its members for an extra few hundred thousand dollars to pay for an emergency job program. The answer seems to be that the ACS has already trimmed away all the budgetary fat it could find, and even then it rang up a \$707,000 deficit last year. (Reserves from a recent dues hike apparently more than offset the loss.)

Insofar as its finances are concerned, the ACS is first and foremost a publishing house. It produces 17 journals, plus *Chemical Abstracts*, a series of monographs, three series of books, educational aids, films, and a radio program. Like the rest of the publishing industry, the ACS is caught in a tight squeeze

between ascending production and mailing costs and descending revenues from advertising.

To relieve some of this pressure, *Chemical and Engineering News*, its widest-circulating publication and formerly a major money-maker, underwent a 20 percent cut in editorial content last year and is under orders to reduce itself similarly this year. "We hope this pushes the magazine into the black," one official says, "or at worst, slightly in the pink." Editorial content and the number of subscriptions declined slightly for most of the journals last year. At the same time, however, subscription prices charged to non-members are being raised to meet soaring costs. (In order for *Chemical Abstracts* to break even this year, the ACS jacked up its subscription price in January from \$1950 to \$2400.) In a message appended to the society's annual report, Executive Director Frederick T. Wall, who is taking an early retirement in September to return to academic life, found one bright spot in the fiscal picture worth noting: Groundbreaking for a big new building in Columbus, Ohio, to house part of the Chemical Abstracts Service, demonstrated "the society's faith in its own future and that of the chemical profession. . . ."

In the face of these difficulties, the ACS might never have bothered to launch its PEP program had it not been for a considerable outpouring of sentiment from the membership in support of some such effort. Sixty-five percent of the respondents to an employment questionnaire the ACS sent out last month said they favored a \$10 one-time assessment of employed members. (The Council approved a donation, however, not an assessment.) Moreover, polls taken by a number of local sections reportedly elicited strong feelings that the society has not done enough to protect its members' jobs during the current tide of layoffs. Certainly this seemed to be the message implicit in Alan Nixon's lopsided election victory last fall.

In an interview, Nixon said the diverse bundle of ideas in his PEP program should be thought of as a "pilot" effort, with 3 years to prove itself. "If it doesn't work out, we can end it there. If it does, perhaps we can make it permanent and up the dues a little to pay for it."

Three years, of course, is all the time his election gives him as a board mem-

ber. Then, presumably, he reverts to the status of an ordinary member.

But that's not to say that the "professionalism" movement in the American Chemical Society will fade back into the woodwork with him. In fact, the movement is showing signs of maturing into a populist party of sorts, complete with a nominee to succeed Nixon. He is Bernard S. Friedman, a professorial lecturer in chemistry at the University of Chicago. His views on professionalism seem closely parallel to Nixon's, and, in fact, Nixon calls him his intended successor. "He'll have the same supporting organization, the 'Chemical Grassroots,' and the same campaign manager," Berkeley chemist Attila Pavlath, Nixon says.

Like Nixon, Friedman was placed on the ACS ballot by membership petition, to run against two men chosen by the

society's nominating committee. They are Milton Harris, former chairman of the ACS board, and Henry A. Hill, president of Riverside Research Laboratories, Inc., in Haverhill, Mass.

As it turns out, Hills' philosophy toward professionalism differs little from Friedman's—according to one ACS staffer—whereas Harris might be thought of as "an old line ACS type" with "more diffuse interests." The point of running a populist candidate against someone of indistinguishable philosophic hue is to conduct a primary election for the movement. The result should be a runoff election, the strategy goes, pitting the most popular "professionalism" candidate against Harris. If this strategy works this fall, Alan Nixon may credit himself with fathering machine politics in American science.

—ROBERT GILLETTE

#### POINT OF VIEW

### Agnew Reprimands AAAS

*In a recent speech at the all-Republican Capitol Hill Club in Washington, D.C., Vice President Spiro Agnew rebuked intellectuals for being intolerant of political ideas that run counter to their own—an attitude that, at its worst, amounts to "nothing less than anti-intellectual Yahooism." He included the leadership of the AAAS among those intellectuals who have contributed to the current "politicization of the learning process."*

A notorious example of the activities of these academic Yahoos occurred at the convention of the American Association for the Advancement of Science at Philadelphia several months ago.

At that meeting, tomatoes were thrown at a United States Senator, while other speakers had to be given police protection. All this, keep in mind, was the result of the tactics of fewer than 100 persons given permissive rein to disrupt the proceedings of a convention of 5,000 scholars representing an organization of an estimated 180,000 members.

To his credit, one of the vice-presidents of the organization, Dr. Daniel Patrick Moynihan, denounced members of this militant Yahoo minority, charging them with "political harassment that has no place in a scientific meeting."

"I'm a political scientist," said Dr. Moynihan, "and I smell fascism."

Less credit, however, is due officers of the association who sought to appease the incipient totalitarianism in their midst.

One of these officials was quoted as saying, after the tomato-throwing episode—and I quote directly—"If there weren't these disruptions it would mean these meetings are not significant."

Let me submit, ladies and gentlemen, that the death of free speech and inquiry is never a unilateral act. It comes in two parts.

First, there are those vicious members of a community who would kill freedom; second, there are those fatuous leaders of a community who, by their acquiescence and lack of intellectual fortitude, stand by and permit the murder to occur.