

National Academy of Sciences

MAN AND HIS SCIENCE

On the edge of change

Philip Handler, scientist and politician, will lead the National Academy of Sciences to greater political activism

by Barbara J. Culliton

On the first of July, master biochemist Philip Handler, who had steadfastly turned down university presidencies to stay close to his laboratory and students, will trade his laboratory of 30 years for a president's chair. He is moving from Duke University to the National Academy of Sciences, that marble bastion of tradition at the end of Washington's Constitution Avenue where science and Government meet.

Chartered by Congress 106 years ago to advise Government on scientific matters, the NAS is a nonprofit, quasi-governmental institution that generally speaks only when spoken to and stays aloof from political controversy outside its own hallowed halls.

The trouble with politics and science, a Congressional committee said recently, is that "Few politicians are scientists and few scientists are politicians."

Dr. Handler, lean, energetic, tough, is both scientist and politician. Long committed to the former role, he holds as an "article of faith" that basic research will inevitably bear fruit in the future as it has in the past, though he cautions that science "can make no guarantees, no promises," that a given road will lead to a predetermined end. His philosophy: "Success is a journey, not a destination."

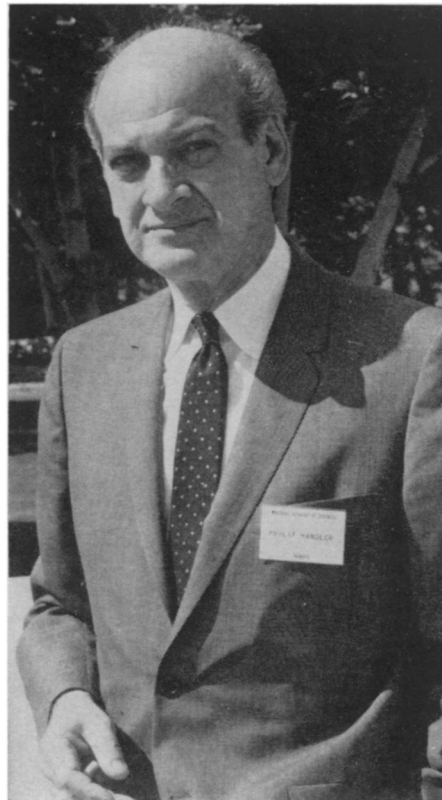
A relative newcomer to the politics of science in Washington, Dr. Handler quickly learned the paths of power in the White House and the Congress. He

has been a member of Presidential advisory panels since 1964 and a member and then chairman of the National Science Board, governing body of the National Science Foundation, since 1962.

Frequently called upon to testify before Congressional committees, he has earned the trust of science-supporters on the Hill, including Rep. Emilio Q. Daddario (D-Conn.), who envisions closer and more productive ties between the academy and Congress. Politicians comfortably call him "Phil," not "doctor," are impressed by his savvy of the ins and out of Congressional decision-making and are ready to listen to him.

Dr. Frederick Seitz, retiring president of NAS and new head of Rockefeller University, calls Dr. Handler a "seasoned diplomat," and other academy members cite the "political acumen" he brings to his job. During the recent uproar over President Nixon's last minute rejection of Dr. Franklin A. Long as director of NSF (SN: 2/10, p. 451), Handler declared that only a public apology from the White House could mend the damage. Having played a key role in convincing President Nixon to do just that, Handler graciously said afterwards simply that he was "pleased."

Said one academy member in the aftermath, "The diplomatic skill with which Handler and others reversed the situation really took the wind out of the sails of some members who were spoiling for a fight."



Tom Clark

Handler—bringing new life to the NAS, a marble bastion of tradition.

With Handler at the helm, the staid National Academy is apparently in for a more active political future. "It could use a little shaking-up," says Handler, adding that the National Research Council, the academy's research arm which currently has some 5,000 scientists looking at various problems through 450 panels, could be used more profitably in investigating social issues.

A humanist deeply aware of social problems and committed to the view that science should offer more guidance to the society that supports it, Dr. Handler is expected to take a hard look at the NRC structure, possibly creating interdisciplinary panels while phasing out those that no longer serve an important function.

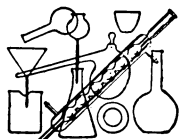
"Handler," says one NAS observer, "may well be able to reorganize the academy and the research council. He knows how to use bureaucracy in the best way, and there's plenty here to work with. In the past, NAS policy- and decision-making have been more a matter of tradition than forethought."

But if the academy is to expand its political voice without splitting wide open, Handler will have to move gingerly. Observes Dr. Max Tishler, director of the Merck Institute for Therapeutic Research and an academy member for 16 years, "Many of the older members fear that political activity will threaten the academy's dignity." On the other hand, he says, "the younger

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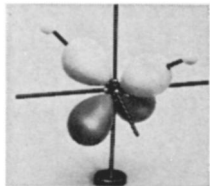
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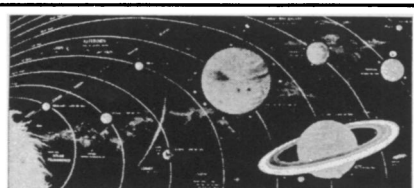


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. . . Handler

members are anxious to become involved. It is a sign of the times."

Gradually, during the past few years under Dr. Seitz, the academy has become more responsive to the times, acting on policy issue through the seven-year-old Committee on Science and Public Policy. Twice it has served Daddario's subcommittee, submitting in 1965 a statement of its views on "Basic Research and National Goals" and in 1967 a report on "Applied Science and Technological Progress." Judged by the international Organization for Economic Cooperation and Development in 1968 to be equal to the President's Science Advisory Committee, COSPUP has also undertaken reviews of the state of the art in various areas, including astronomy and chemistry. These evaluations guide the White House in setting priorities. A supporter of COSPUP activities, Dr. Handler will not allow the committee to go to waste.

Though credited with diplomacy on one hand, Handler's colleagues say, he also can be "irritating as hell." His views on the politics of science, his evaluations of research are definitive—some say prejudiced—and he speaks at times with an omniscient tone that makes his professional equals uncomfortable. A man who has worked under him on committees says, "If he is opposed to something, he can be convinced, but he takes a lot of convincing, and you have the feeling through it all that you had better be right."

Though Handler wants the academy to jump into the political fray, he has no desire to see it jump off the deep end.

"There is a useful hallmark that distinguishes a good scientist," he says. "He needs to be reasonably bright and well trained in his discipline. He examines that discipline and defines what seem to be the most salient, key questions that require solution. Then he asks himself why he rather than someone else should find the answers. There are times when he must admit, 'That's a great question, but I'm the wrong man,' or 'That's a great question, but the time is wrong. We don't have the tools to answer that problem yet.'"

When the times and the men are right, Handler ardently backs the pursuit of questions in fundamental research irrespective of the social implications they portend and in spite of hopes that some will bear little fruit. He cites genetic engineering—the prospect of manipulating heredity (SN: 1/11, p. 31)—as a "dramatic illustration."

"Perhaps one day we may be able to make copies of a Bunche, Rabi or Schirra, or of an Eldridge Cleaver, or Lew Alcindor or of any other genotype identifiable in our population," Han-

dlar predicts. "I hope that day never comes. For my part, I rather hope that this line of experimentation will fail." But, he adds, as far as research is concerned, there must be "no constraints. I think there is no alternative but to go down this trail. The idea that we should by fiat state, 'Thou shalt not in thy laboratory do any experiment which leads down that trail,' is an equally repugnant thought. No constraints."

Somewhat optimistically, he observes, "There isn't much we can do in the future that can compare to the shocks of the past," such as the Copernican revolution and Darwin's theory of evolution which "destroyed man's image of himself as something created in the image of his maker."

If and when man is able to control inheritance, the academy should be useful in helping society decide how to handle its new power. In the meantime, Handler believes the academy should speak out on current issues in which science can affect society. Urging the academy to abandon its Victorian speak-only-when-spoken-to behavior, he says, "I don't see any reason why we have to wait to be asked."

Taking every opportunity to point out that the academy was not asked its opinion of the antiballistic missile system, he clearly implies that it might have volunteered. And other issues concern him: the need for interdisciplinary research in the social sciences, the threat of Federal cutbacks in support of universities torn by riots, environmental contamination.

In one way or another, the academy may become involved in such broad issues in the future, while at the same time expanding its defense of basic research.

Handler gave 30 years to such work, and will not slight it now. As an 18-year-old undergraduate at City College in New York he became interested in biochemistry, going on to get his Ph.D. from the University of Illinois at 21. From there he went to Duke, where, in 10 years, he was named chairman of the department of biochemistry, guiding its growth from a department of five teachers and a handful of graduate students to one with 22 teachers and close to 70 students.

He takes pride in the fact that Duke, once an undistinguished Southern school, is now "a major medical school and at least a rather good university." A devoted professor and recipient of Duke's equivalent of a "teacher-of-the-year" award, Handler continues to teach graduate and undergraduate classes in spite of obligations to the laboratory, to scientific meetings, the Science Board, which he will head for another year, the

NAS, the Squibb Beech-Nut Company of which he is a director, and a heavy speaking schedule.

In his laboratory, Handler has concentrated his research on enzymes—their metabolism and mechanism of action as catalysts in biochemical reactions and their role in evolution.

Colleagues describe him as a first-rate scientist whose work over the years has been "solid, continuous, productive, with good sense about what leads to pursue." There have been none of the brilliant flashes or headline discoveries that seldom characterize science anyhow, but the overall quality of his work won him in 1964 prized membership in the institution he is about to head.

When he moves to Washington in July, he hopes to be able to do some teaching, perhaps at a local university, and also hopes to escape the summer heat by heading for Woods Hole, Mass., with his wife, Lucille, and two sons, as he has other summers, for a couple of months of writing and sailing. In town, he and his family will move into a fourteenth floor apartment at the posh new Watergate West, having asked the academy to sell the wooded mansion it owned just off embassy-lined Massachusetts Avenue. "Though we didn't know it at the time, we're moving to a very public address," says Handler. Neighbors include Cabinet members.

As a public person, though he says he does not relish the role, Handler should have few problems. He has a warmth that people respond to and even academy employes are impressed with his ability to remember their faces, if not their names. "In fact," says one, "he comes across so well that after a recent television interview he received his advice about how to leave money to science."

But raising money is not first order of business, though it may be the second. Moving the academy into the forefront of activity is, and in spite of its prestige, it seems it needs a bit of the limelight.

Recently at a Senate hearing on the NSF budget, where discussion ranged from money to ABM to social problems, Sen. Edward M. Kennedy (D-Mass.) asked Handler if he thought the Government and Congress should have some official body of experts to whom they can turn for advice. Smiling—or blushing—Handler leaned forward in his chair in the center of the hearing chambers, rested his arms on the table, thought a minute and said, "Mr. Chairman, President Lincoln faced that problem 106 years ago and set up the National Academy of Sciences. Its only excuse for existence is to give advice. If you think, Senator, that I'm looking for business, you're right." ◇

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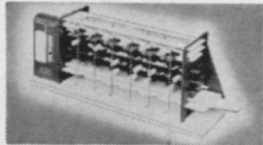
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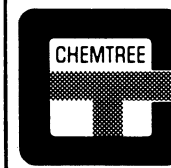


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