

A spate of science appointments

**Nixon names his men
for NSF, NBS;
a decision due on Knowles**

Appointments to Federal scientific posts have not been likely to provoke extended public dispute. But this, so far, is not the year for domestic tranquillity in the science-government arena.

To the chagrin, if not the embarrassment, of the Nixon Administration, two major posts of high importance to science and medicine have for months remained without new appointees, while the Administration's acknowledged choices were being publicly and privately opposed on political and philosophical grounds.

In one, the directorship of the National Science Foundation, the person being considered, Dr. Franklin A. Long, removed himself from contention after being first rejected and then reoffered the job following a controversy over his political views and their relevancy to the position (SN: 5/10, p. 451). In the other, Dr. John H. Knowles continued to wait patiently while the Administration struggled to overcome threatened Senate opposition to his nomination as Assistant Secretary for Health and Scientific Affairs in the Department of Health, Education and Welfare.

Last week Mr. Nixon, having announced his new choice on the NSF post, was on the verge of ending speculation on the man for HEW. He had also made his choice for a third science post: Dr. Lewis M. Branscomb, the 42-year-old chairman of the Joint Institute for Laboratory Astrophysics in Boulder, Colo., was named director of the National Bureau of Standards. He succeeds Dr. Allen V. Astin, who is retiring Aug. 31 after 37 years at the bureau. The NBS post is not nearly as sensitive as the others, although the bureau has had its share of squabbles in the past, as in the question of product



Johns Hopkins

McElroy: Biologist top man at NSF.



Knowles: A patient and silent wait.

testing (SN: 6/7, p. 558). Its budget is currently \$37 million.

To become director of NSF, Mr. Nixon nominated Dr. William D. McElroy, a highly regarded biochemist who has been chairman of the biology department at Johns Hopkins University for nearly 13 years.

Any action related to NSF is of high interest to the scientific community, and the selection of Dr. McElroy seems to be a popular one. Persons who have worked closely with him are impressed with his dynamism, mental toughness and directness. "He's a no-nonsense, straight-talking guy, and you always have the feeling he's bubbling for action," says one.

That a man known as an activist is taking the helm seems significant, for there is a general disappointment among scientists that the NSF has never been able to take the central role in support of science in the United States that was originally envisioned for it.

Although it is the only Government agency whose expressed mission is the support of basic science, at no time has it provided more than about one-eighth of the total Federal support for basic research. And it provides only about one-sixth of the Federal funds for academic science. NSF has been a major source of support in certain fields, such as pure mathematics, ground-based astronomy and systematic and environmental biology, but as present Director Leland J. Haworth told the Senate NSF authorization subcommittee in May, "it has not been able to assume the across-the-board leading role in the support of all areas of science that was contemplated at its inception."

Much of this is due to the strongly accepted tradition of supporting science

from a variety of Federal sources, according to the particular research interests of each mission-oriented Government agency. And much is due to the lack of any organized constituency for basic science.

But many hold the view that some of NSF's problems have been brought about by timidity, a reluctance to present its case for the support of basic science more forcefully and aggressively. "Everyone has the impression that there has been too much indecision at the top of NSF," one scientist says.

Dr. McElroy feels that most of the arguments NSF people having been using in seeking support from Congress have been good, but acknowledges that perhaps more can be done.

He agrees that NSF should take a leading role in the support of science and basic education and supports the proposals made earlier this year by NSF's policy-making National Science Board to provide broad support directly to graduate schools through a national program of institutional grants (SN: 3/29, p. 306). The plan would supplement, not replace, the present system of grants for specific research projects.

"I think the directions that are talked about in the board report are the way we will have to go," he says.

He also feels the NSF will have to take a more active role in support of social science research, which, he points out, is urgently needed to help alleviate some of the country's major urban problems.

There seems little likelihood that Dr. McElroy's nomination will not be approved on Capitol Hill. Two key people blocked the earlier nomination of Dr. Long for the position, Rep. James G. Fulton (R-Pa.), the ranking Republi-

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NBS

Branscomb: Heading standards lab.

can on the House Committee on Science and Astronautics, and Sen. Everett Dirksen (R-Ill.). Dirksen says he would approve Dr. McElroy. And Fulton, although not happy about Dr. McElroy's participation in Scientists and Engineers for Johnson and Humphrey in 1964, says he will not be against him. "He's a fine scientist, and he hasn't been involved in any controversial political matter as Long had." Nevertheless Fulton remains irritated that all the names he saw considered for the post were those of Democrats.

Dr. McElroy comes into the job with an impressive scientific record. He is a world authority on bioluminescence, the process some living organisms use to convert chemical energy to visible light. In the course of his studies, he solved the structure of the substance luciferin and determined the nature of the subtle role of the enzyme luciferase.

His work brought him election to the National Academy of Sciences in 1963. Ironically, as a member of the NAS council, he was one of the scientists who met with Nixon on the Long controversy on April 28, when the President publicly admitted his error in refusing to nominate Dr. Long on political grounds.

Associates say Dr. McElroy has great insight into the problems of science and Government, gained in part through membership on the President's Science Advisory Committee from 1962 to 1967, service on several NSF panels, and a term on the Academy's Committee on Science and Public Policy (COSPP).

Biologists are elated that one of their colleagues was named for the top NSF post. Dr. McElroy's two predecessors were both physicists, and some scientists take this as another sign of the rising prestige of the life scientists and the decline in eminence of the World War II-nurtured physicists. Dr. McElroy, however, feels his scientific field was not a factor in his selection. ◇

THE PANALBA CASE

Antibiotics in court

The Food and Drug Administration's authority to remove from the market a host of combination antibiotics is being challenged in court. The Upjohn Company is moving to block FDA action prior to a full-scale hearing on the safety and effectiveness of Panalba, a combination product that brings in upwards of \$16 million a year.

The outcome of the case, now in Michigan courts, will have ramifications on the fate of some 49 other combination antibiotics FDA plans to ban on grounds that they are either unsafe or ineffective or both.

In action based on drug evaluations by a panel of scientists established by the National Academy of Sciences, FDA declared its intention of banning Panalba—a tetracycline-novobiocin combination—prior to a hearing on grounds that the drug is ineffective as a combination and that novobiocin presents a hazard to health (SN: 5/31, p. 523).

In mid-June, a circuit court granted the Kalamazoo, Mich., company a temporary restraining order against FDA which will be in effect until the beginning of July. The court will then rule on Upjohn's petition for an injunction that would prohibit FDA from banning

Panalba until a hearing is held on the antibiotic.

Officials of FDA say the present contest between industry and the agency is without precedent. Under law passed in 1962, FDA must grant a hearing before rescinding its approval of a new drug unless a clear threat to health is involved, in which case the Secretary of Health, Education and Welfare can remove a drug from the market by special order.

This regulation, however, does not apply to Panalba, which was approved prior to 1962 and which is subject to special provisions applying to antibiotics, including batch-by-batch certification by FDA. Nor, in some views, does Panalba involve an uncontestable threat to health.

"Novobiocin," says a spokesman for the Pharmaceutical Manufacturer's Association, "is no more dangerous than it ever was." Side effects including rash, liver disorders and blood disorders are known to occur, but were known when the potent drug was first licensed.

The safety argument would, presumably, be resolved in a hearing. At issue now is the authority of FDA to act without giving the drug companies a chance to present their case.

TEKTITES

Moon source proven

Tektites are mysterious glassy pebbles. Their geographical distribution and their chemical composition, which differs from that of earthly minerals, have made many scientists suspect that they come from space. The moon has been suggested as a possible origin.

Now, a scientist with the National Aeronautics and Space Administration, Dr. Dean Chapman, who is chief of the thermal and gas dynamics division of the Ames Research Center at Moffett Field, Calif., presents evidence that, he says, builds an airtight case for the lunar origin of at least one group of tektites.

Dr. Chapman's samples are the so-called Australasian tektites found in Australia and Southeast Asia. These are about 700,000 years old and are the youngest of the tektites. There are two other age groups: 15 million years old and 35 million years old.

Dr. Chapman suggests that the Australasian tektites come from moon's crater Tycho. He believes they were formed when an asteroid hit, splashing droplets of molten rock so high that they escaped the moon's gravity and fell to earth.

Dr. Chapman has been collecting

and studying Australasian tektites for nine years, during which time he has collected hundreds of thousands from 200 locations in 10 countries. The chemical composition of the tektites divides them into 10 families. The families are found in long strips of the landscape, "elongated streets," as Dr. Chapman puts it.

Assuming an origin beyond the earth, Dr. Chapman set out to determine a trajectory that might have caused this kind of fall pattern. The argument is easiest to construct in reverse, so he started from the moon.

First he looked for a large young crater that would be about 700,000 years old. Tycho fits these specifications. The next step was to determine whether objects coming from Tycho could have landed on earth in the pattern of the Australasian tektites. For this he used the same computer analysis that is used to determine the splashdown points of returning lunar spacecraft. The result gave the observed pattern of tektite finds.

He also points out that chemical analyses showed minor variations among the members of the 10 families. He