Office of International Research, which was established last year to coordinate activities that previously had been almost entirely in the hands of the individual Institutes. Since the foreign grants are considered to be extensions of the Institutes' domestic programs, the Institutes retain their key role in the awarding process; but the newly established office has begun to impose general policy lines that reflect concern about some of the less apparent problems arising from NIH support of foreign science.

At the heart of these problems is the question of why NIH should finance other nations' research efforts. The official answer, that it does so only to take advantage of talent and equipment not available in this country, would be difficult to test; but more fundamentally, the foreign grant program raises the issue of whether it is in the long-term interest of the United States to give other governments an excuse for not supporting their own scientists. In some of the recipient countries American support obviously makes the difference between research and no research, but in many others, Sweden among them, there seems to be little doubt that if the government shared NIH's concern for supporting a given project financial assistance would be forthcoming.

The trend of thinking within the office appears to be that it is desirable to work out a middle course between supporting promising projects abroad and encouraging foreign governments to increase support for their own scientists. The White House has left NIH to work out its own solutions in this matter, and seems to have exempted it from the pressure for federal agencies to reduce expenditures abroad. At the same time, however, there is a feeling within the administration, generated in large part by Jerome Wiesner, the President's science adviser, that the strength and future of the non-Communist world are intimately related to scientific and technical development, and that American policies should be shaped to encourage our friends and allies to provide greater support for their scientists.

Overhead Costs

One early product of the Office's reappraisal was a decision last January to discontinue the payment of indirect, or overhead, costs on foreign grants. The effect of this decision was a bit of grumbling, particularly from Israel, which has one of the larger NIH programs, but the new policy did not cause any dropouts, nor was it followed by any decline in the number of applications for grants.

Also under consideration are a number of proposals, including the adoption of dollar ceilings based on the percentage of support that a country provides for its own research, and a straight matching basis designed to encourage other nations to spend more of their own money to qualify for NIH support. Another proposal would provide an initial sum to get a project underway with the understanding that the recipient country would eventually take over the financing.

NIH Offices Abroad

NIH has also recognized that Bethesda, Md., is not the best place for appraising its foreign programs, and, as a result, it has opened offices in the Far East, Latin America, and Western Europe. In general, the task of these offices is to establish closer ties with foreign scientific communities, but specifically, NIH wants to have more information to guide its awards of foreign grants. For example, there is the key question of whether a foreign researcher could obtain funds within his own country. NIH's representatives in Europe said in a recent interview that this is an extremely ticklish one to answer, since the grant applicants and recipients are inclined to insist that without American support their work could not take place, while their own study councils are inclined to insist that if the work were really critical, they would naturally support it.

Embarrassing Case

Closely related to this is the question of whether American support for a given researcher is likely to kick up a storm within his own scientific community and cause a sour attitude toward the bearer of gifts. This is one of the effects of the Bjorklund case, which is a source of embarrassment to NIH. Bjorklund, an immunologist, received a 5-year, \$250,000 grant from NIH in 1959 to finance research on a cancer vaccine. NIH felt his proposals were promising and it has not shifted from this point of view. But the support for Bjorklund has aroused the ire of many Swedish scientists, and NIH has had to admit that it was not as careful as it might have been in deciding to finance his work.

Bjorklund's work began to receive public attention in Sweden when, in an atmosphere of general disapproval from fellow scientists, he announced that he planned to conduct field trials of his vaccine. It was subsequently discovered that his Immunological Research Laboratory was an altogether independent organization, with no relationship to the State Bacteriological Laboratory, which NIH had mistakenly assumed to be Bjorklund's administrative superior. Part of the misunderstanding arose from the fact that Bjorklund's laboratory is located in one of the State Laboratory's buildings, and part apparently came from a misreading of his application.

Since NIH policy generally calls for some recognized body to provide administrative supervision over its grantees, it found itself in a difficult position, and on 31 August, it temporarily suspended further payments of the grant. In quest of a solution, it asked the Swedish Royal Caroline Institute to assume administrative responsibility, but the Institute, which contains some of Bjorklund's severest critics, unanimously rejected this proposal last week. It had earlier been suggested that the State Bacteriological Laboratories take on this task, but Bjorklund is reported to oppose this, apparently because the head of the laboratory was among those who felt that the field trials were premature.

At present, Bjorklund's only reported source of support is two small grants from insurance companies. Meanwhile, NIH is awaiting the results of efforts to locate him administratively in the structure of Swedish medical research.—D. S. GREENBERG

Fish Flour: National Academy Study Disputes the Food and Drug Administration's "Filthy" Label

The National Academy of Sciences has taken a look at whole fish flour and has concluded that the product does not deserve the "filthy" label applied to it by the Food and Drug Administration.

The Academy's verdict, which was arrived at by a seven-member study committee, has no legal effect on FDA's decision to refuse certification, but it constitutes an influential appraisal that may (i) cause FDA to restudy its position and (ii) serve as potent argument if the matter is forced to a legal showdown.

Fish flour, also known as fish protein concentrate, is a powdery substance that has caught the administration's attention as an excellent solution for protein deficiencies in underdeveloped nations. Its principal virtues are high protein content, low cost, stability without refrigeration or expensive packaging, and tastelessness, which makes it suitable as a supplement for various cultural food preferences. The cost, however, is low only if the product is made from whole fish, since the labor involved in eviscerating the raw material raises the price considerably.

Last January, FDA, in response to a domestic manufacturer's application for certification, noted informally that the product contains fish eyeballs, intestines, gills, and scales, and then concluded officially that "consumers in the United States generally would regard the product . . . as filthy." It subsegently set forth a requirement that the product could be sold in interstate commerce only if made from cleaned fish.

Difficulties Abroad

The decision did not have any significant effect in this protein-rich country, but it posed difficulties for promoting use of the product abroad. For one thing, the public health authorities in many underdeveloped nations look to FDA as a guide for their own standards; furthermore, the decision left the administration open to propaganda charges that it was trying to get foreigners to eat a product that it considered entirely unsuitable for its own people.

The Academy study was conducted at the request of the Interior Department, whose Bureau of Commercial Fisheries sees fish flour as a new and sizable source of income for the troubled American fishing industry. The study concluded that fish flour seems to be more wholesome than a number of whole fish products that go unchallenged by FDA-sardines, oysters, clams, and shrimp. (FDA has explained that it is not troubled by these products because they were widely consumed before FDA came into existence.) But the Academy also noted that more research is needed on fish flour to control the quality and the solvent

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residues from the production process.

The Bureau has undertaken a broad research program at its Technological Laboratories, College Park, Maryland; considerable work is also being done by the Food and Agriculture Organization of the United Nations.

Disarmament: Copies of Testimony by Administration Leaders Available

Detailed and illuminating testimony by administration officials on the formulation of American arms control and disarmament policies is contained in a congressional transcript released last week.

The transcript, covering 120 pages, contains testimony given in September by William C. Foster, director of the Arms Control and Disarmament Agency; Franklin Long, director of the agency's bureau of science and technology; Paul H. Nitze, assistant secretary of Defense for International Security Affairs, and Secretary of State Dean Rusk. Classified information has been deleted from the transcript, but the remaining material, while offering no revelations, provides considerable information on ACDA's interagency dealings and on the concepts that are dominant in administration thinking on disarmament. Copies, titled "Arms Control and Disarmament Hearings, September 1962," may be obtained without charge from the Senate Armed Services Preparedness Investigating Subcommittee, Washington, D.C.

Addition to News and Comment Staff

John R. Walsh, former assistant to Congressman John Brademas of Indiana, has joined the News and Comment staff. Walsh is a graduate of Middlebury College and Oxford University. He was a reporter for the Louisville *Times* from 1955 to 1960.

Announcements

An agreement to cooperate in the testing of **experimental communications satellites** has been signed by the Japanese government and the National Aeronautics and Space Administration. The Japanese Ministry of Posts and Telecommunications is to provide a ground station with capability for communication by means of American artificial satellites. Transmissions are to be used for test purposes only, although attempts will be made to arrange for telephone, radio, television, and wire-photo demonstrations through domestic telecommunications networks. Each agency is to designate a central point for continuing exchange of information relating to the tests, and will defray all costs of their respective activities.

A National Institute of Child Health and Human Development is to be established early in 1963 within the National Institutes of Health to promote and support studies directed at the entire life span process. The new institute, which will include the current Center for Research in Child Health, is expected to stimulate research in such problems as congenital malformations, infant mortality, mental retardation, and maternal influences on development and health of infants and children. The bill authorizing its establishment was signed by President Kennedy on 7 October.

The U.S. Atomic Energy Commission has initiated a nationwide personnel recruitment program to obtain engineers and scientists with experience in various atomic energy fields, including reactor development, physical research, biology and medicine, and AEC regulatory activities. Particularly desired are nuclear engineers and physicists, radiation specialists, physicists, mathematicians, biologists, and other biomedical scientists. Candidates in the nuclear reactor field should have a B.S. degree or its equivalent in nuclear engineering, physics, or in mechanical, chemical, metallurgical, or electrical engineering. In the health physics—radiation protection field. the basic requirement is a B.S. degree in the physical sciences and mathematics. For positions in physical and biomedical research activities, the basic requirement is a Ph.D. degree or its equivalent in physics, chemistry, mathematics, biology, physiology, or related life sciences. All candidates must have research experience in atomic energy activities. Salaries range from \$8025 to \$17,925 per year. (Coordinated Technical Recruitment, Headquarters, AEC, Washington 25, D.C.)