

# News of Science

## AAAS Sections Call for Papers for the New York Meeting

Nine sections of the association will arrange sessions for contributed papers at the New York meeting, 26-31 Dec. 1956. The secretaries to whom titles and brief abstracts should be sent, *not later than 30 Sept. 1956*, follow:

- C-CHEMISTRY. Dr. Ed. F. Degering, 26 Robinhood Road, Natick, Mass.
- E-GEOLOGY AND GEOGRAPHY. Dr. Robert L. Nichols, Department of Geology, Tufts University, Medford, Mass.
- G-BOTANICAL SCIENCES. (Probably; in cooperation with botanical societies.) Dr. Barry Commoner, Henry Shaw School of Botany, Washington University, St. Louis 5, Mo.
- H-ANTHROPOLOGY. Dr. Gabriel Lasker, Wayne University College of Medicine, 1401 Rivard Street, Detroit 7, Mich.
- I-PSYCHOLOGY. Dr. Conrad G. Mueller, Department of Psychology, Columbia University, New York 27, N. Y.
- L-HISTORY AND PHILOSOPHY OF SCIENCE. Dr. Jane M. Oppenheimer, Department of Biology, Bryn Mawr College, Bryn Mawr, Pa.
- ND-DENTISTRY. Dr. George C. Paffenbarger, American Dental Association Research Fellowship, National Bureau of Standards, Washington 25, D.C.
- NP-PHARMACY. Dr. John E. Christian, School of Pharmacy, Purdue University, Lafayette, Ind.
- Q-EDUCATION. Dr. Herbert A. Smith, 205 Bailey, School of Education, University of Kansas, Lawrence, Kan.

## STIP Study on the Use of Science Counselors

Administrative agreements have been signed with the University of Nebraska, University of Oregon, Pennsylvania State University, and University of Texas for the Study on the Use of Science Counselors that is being sponsored by the AAAS Science Teaching Improvement Program. Under the agreement, STIP provides a grant to each university to operate a center for the study. Each university will name a coordinator for the center and employ two experienced

teachers to serve as science counselors during the academic year 1956-57. The counselors will visit secondary schools in the territory surrounding the university, assisting and counseling with the science and mathematics teachers in these schools.

It is suggested that as many high schools be included in a center as will be required to include 100 to 150 full-time science and mathematics teachers. In each center an advisory committee, consisting of representatives of the departments of biology (botany and/or zoology), chemistry, education, mathematics, and physics, will be established.

It is the purpose of the Study on the Use of Science Counselors to test a method for increasing the competence of teachers, many of whom are relatively inexperienced and may be lacking in several aspects of desirable preparation. Many teachers of science would profit from improved laboratory and demonstration techniques and greater knowledge of subject matter, with stress on recent developments.

It is hoped that the study will be completed before the scarcity of science teachers reaches its peak, and that the results will point to a method for alleviating the shortage, perhaps a method that will merit support by public funds. It is believed that a science counselor with desirable breadth and depth of training in the sciences and mathematics, with a background of outstanding accomplishment in teaching, a natural ability to work with people, and practical knowledge of the learning process, can stimulate and improve the work of a small group of less well-prepared and more inexperienced teachers.

In addition to making effective use of teacher counselors, the study is intended to bring staff members in science, mathematics, and education into closer working relationships on a problem of common concern, and to bring college and university science staffs into closer communication with secondary schools. The study will provide for direct services by the universities to secondary schools. The university will be responsible for forming satisfactory working relationships with the participating schools and for obtaining the approval and cooperation of the

state departments of education. It is suggested that whenever possible a counselor be made at least a nominal member of the state education department.

The centers were selected by an advisory board that consists of J. W. Buchta, professor of physics at the University of Minnesota; John Richardson, professor of science education at Ohio State University; and B. L. Dodds, dean of the College of Education at the University of Illinois. The director of STIP is chairman. The center coordinators are also to serve as members of the advisory board. The board will plan an evaluation of the study with the assistance of the centers and the cooperating schools.

The Study on the Use of Science Counselors will continue through one academic year, for which the grants have been made, and it is expected that the project will be extended for a second year. A 5-day conference for center coordinators and counselors will be held on the campus of the University of Colorado 19-23 June.

JOHN R. MAYOR, director  
*Science Teaching Improvement Program*

## Small Industries Training Program

The first training program for small industries to be held under the auspices of the United Nations Technical Assistance Administration was concluded with a special ceremony at the Technological Institute in Copenhagen 20 Mar. The program enabled 19 qualified persons from 16 economically less advanced countries to study new techniques and methods in their particular fields.

The program was organized by TAA in cooperation with the Government of Denmark, the Copenhagen Technological Institute, the International Labor Organization and the United Nations Educational, Scientific, and Cultural Organization. The TAA sponsored 12 fellowships, the ILO four, and UNESCO three. The countries represented were Brazil, Burma, China, Colombia, Costa Rica, Egypt, Haiti, Indonesia, Iran, Iraq, Israel, Jordan, Pakistan, the Philippines, Thailand, and Yugoslavia.

## Dosage Schedule for Salk Vaccine

According to Hart E. Van Riper, medical director of the National Foundation for Infantile Paralysis, the following compromise, or emergency, dosage schedule for Salk vaccine that comes into the physician's private practice seems warranted under current conditions of supply.

1) Do not give "booster" shots between 15 Mar. and 1 July. There is minimal risk if, in fact, any at all, in giving

primary or booster shots *during* the polio season.

2) Use all available vaccine immediately. Do not save it for "second shots," even though a sterilely punctured vial of vaccine can be kept under refrigeration for an indefinite length of time without impairing either the safety or the potency of the vaccine.

3) The increasing supply of vaccine should be depended on for second injections in 1956. The exact interval recommended between the first and second doses is not critical, so long as it is not less than 2 weeks. In fact, longer intervals seem to be advantageous. Therefore, the second dose may be given at any time without losing the benefit of the first.

4) The third dose should be given not less than 7 months after the second but may be given at any length of time thereafter.

On 13 Mar. the Surgeon General of the U.S. Public Health Service issued a statement endorsing the postponement of "booster shots" as a temporary measure "to enable more children to receive first or second doses and thus extend protection to more before this summer's poliomyelitis season."

On the basis of reports from manufacturers and the Surgeon General of the U.S. Public Health Service concerning estimated vaccine production, there is reason to believe that an adequate supply should be available for distribution before the seasonal advent of poliomyelitis in different regions of the United States. How much of this will get into the hands of private physicians is variable, depending on decisions of state and local health authorities and their advisory committees.

If the expected supply becomes available, it should be about enough to provide a high degree of protection against paralytic poliomyelitis before the 1956 polio season to all children in the most susceptible age groups (6 months through 14 years) and pregnant women who request it. In round numbers, there are approximately 50 million individuals in these categories. At least 10, and probably 15, million children have already received one or more injections of Salk vaccine. This leaves about 35 million children to be vaccinated on an emergency basis before the 1956 polio season.

Granting rapid and equitable distribution and no unexpected delays in processing and releasing vaccine (which requires a minimum of 120 days), there should be just about enough vaccine to give at least one, and usually two, injections each to 35 million people.

The ideal dosage schedule currently recommended is: Two 1-cubic centimeter injections, spaced 2 to 6 weeks apart, with a third 1-cubic centimeter

booster injection given not earlier than 7 months later. Ideally, the first two injections should be given immediately after the previous polio season, in the late fall, with the booster injection being administered just before the subsequent polio season. It is easy to see that this is a schedule impossible to follow under the emergency conditions of 1956.

In the future, vaccination against paralytic poliomyelitis, undoubtedly, will become a standard pediatric procedure, with a schedule of injections beginning at 6 to 9 months of age. But realistic consideration of the current situation shows that the effectiveness of the vaccine depends on the mass of antigen administered and the number and spacing of inoculations.

### Plans for Atomic Power

The plans of the Soviet Union, the United Kingdom, and the United States for the production of electric power from nuclear energy have been outlined in general at a meeting in Bangalore, India, of the Electric Power Subcommittee of the United Nations Economic Commission for Asia and the Far East.

Frank Maddocks of the United Kingdom pointed out that the development of atomic energy is vital to his country, for coal is getting scarce and expensive. Britain must, therefore, embark on an ambitious atomic energy program as a practical proposition. Maddocks said that a prototype generating station in the north of England is nearing completion and will begin supplying electric power toward the end of this year. Twelve stations to be built over the next 10 years, of which two will be built next year and two more the following year, should supply a total of some 2 million kilowatts, he said. The four stations being built over the next 2 years should, by 1963, add between 400,000 to 800,000 kilowatts to the national grid.

The experience of the United Kingdom, Maddocks went on, would be made available to other countries. In this connection, he remarked that arrangements for training had already been made with India and Pakistan through the Colombo Plan. He added that the United Kingdom would be short of nuclear fuel for the next 5 years.

Speaking for the United States, Samuel F. Neville said that atomic power plants with a total estimated capacity of 750,000 kilowatts are under construction or being designed, including a fast breeder reactor of 100,000 kilowatts near Detroit, Mich. In the United States program, said Neville, atomic energy production must compete with power from conventional fuels. It is not expected

that such a stage will be reached before the second or third generation of reactors come into operation.

He pointed out that the United States has an installed electric power capacity of 115 million kilowatts and that it is estimated that, by 1975, it will need an installed capacity of from 360 million to 420 million kilowatts. By that time, he said, it is expected that atomic energy will supply some 40 million to 50 million kilowatts.

Nikolai M. Chuprakov, of the Soviet Union, said that the first atomic power station in the world using uranium had been operating in the U.S.S.R. since 1954, and that his Government is building 2000-kilowatt experimental atomic reactors to be used for training in Poland, Czechoslovakia, Rumania, Hungary, Bulgaria, and East Germany, and a 6500-kilowatt reactor for the Chinese People's Republic. Chuprakov remarked that the U.S.S.R. charges nothing for giving its experience, requiring payment only for the cost of the equipment it supplies.

### News Briefs

■ The \$20-million suit for patent infringement that was filed in 1954 by Mary Marcus against Selman A. Waksman, the Rutgers Research and Endowment Foundation, and Merck and Company [*Science* 120, 966 (10 Dec. 1954); 121, 11 (7 Jan. 1955)] was dismissed on 26 Mar. by Federal Judge Thomas F. Meaney of the New Jersey District Court. He commented that

"It seems to me that Miss Marcus has consistently evaded all the processes of this court and has completely failed to give a satisfactory reason why she has not appeared for a deposition. She has been acting in bad faith throughout the case."

■ On 28 Apr. the Harvard Observatory Council is inviting the eastern astronomers and radio astronomers, and some friends of Harvard Observatory and the 21cm Project, to participate in ceremonies for the dedication of a new 60-foot steerable radio telescope and the associated electronic equipment at the G. R. Agassiz Station near Harvard, Mass. However, the equipment is not expected to be in full operation until 6 weeks after the dedication.

Participants in the program for the day are as follows: Bart J. Bok of Harvard University; Robert J. Grenzback of D. S. Kennedy and Company, Cohasset, Mass., builders of the new radio telescope; Harold I. Ewen, codirector of the 21cm Project at Agassiz Station and builder of the electronic unit; Donald H. Menzel of Harvard University; Alan T. Waterman, director of the National Sci-