

MINUTES

ADVISORY COMMITTEE FOR BIOLOGY AND MEDICINE

NINETEENTH MEETING

Held at

OAK RIDGE OPERATIONS OFFICE

Oak Ridge, Tennessee

November 11 and 12, 1949

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MINUTES

Advisory Committee for Biology & Medicine

November 11 & 12, 1949

The nineteenth meeting of the Advisory Committee for Biology and Medicine was held on Friday and Saturday, November 11 and 12, 1949, at the Oak Ridge Operations Office, Oak Ridge, Tennessee, with all members being present.

Attendance

ATTENDANCE

Members of Committee

Dr. Alan Gregg, Chairman
Dr. E. W. Goodpasture, Vice Chairman
Dr. George W. Beadle
Dr. Detlev W. Bronk
Dr. A. Baird Hastings
Dr. J. T. Wearn
Dr. E. C. Stakman

AEC and the Division
of Biology & Medicine

Dr. Shields Warren
Dr. J. Z. Bowers
Prof. H. L. Bowman
Dr. W. F. Bale
Dr. W. D. Claus
Dr. J. H. Jensen
Dr. P. B. Pearson
Mr. H. A. Stanwood
Mrs. Frances R. Montgomery
Mr. J. A. Derry
Mr. C. A. Palazzolo
Mr. Oliver Townsend

Oak Ridge Oprns. Office

Mr. R. W. Cook
Dr. A. H. Holland, Jr.
Dr. Alexander Hollaender
Dr. M. D. Brucer
Dr. K. Z. Morgan
Dr. P. C. Aebersold
Dr. Edward McCrady
Dr. H. G. Stoeckle

The laboratory program directors at Oak Ridge presented their programs on Friday. The Committee was impressed with the progress that has been made during the past two years in the various programs.

November 12, 1949

Minutes of Meeting of October 20, 1949

Minutes of Meeting of October 20, 1949. The first order of business presented to the Committee by the Chairman was the reading of the minutes of the meeting held at the AEC on October 20, 1949.

Clearance

Clearance. Dr. Warren brought to the attention of the Committee the statement which had been approved by them at the last meeting for insertion in the minutes pertaining to the delineation of secret and non-secret data. This statement is to be sent to the Commission for further distribution.

Atomic Bomb Casualty Commission

Atomic Bomb Casualty Commission. Also, at the instance of the Committee, the General Manager forwarded to the Chairman of National Research Council a letter which suggested a reappraisal of the Atomic Bomb Casualty Commission program. In this connection, Dr. Bronk stated that he would appoint an interim committee to appraise the whole program as to its scientific worth and report their findings to the AEC.

Aureomycin Paper

Aureomycin Paper. The Committee expressed their regrets that the paper entitled "The Effect of

Aureomycin and Antibiotics on Whole Body Irradiation"

by Dr. J. W. Howland has been released to the press in advance of its publication in a scientific journal.

Dr. Warren stated that he would suggest to AEC investigators that this procedure should be corrected.

At the conclusion of these discussions, the minutes of October 20, 1949, were approved unanimously.

Report on
Research
Projects

Report on Research Projects. Dr. Bowers reviewed the subjects of research which had been approved as well as declined during the month of October 1949 which are listed as follows:

a. Proposals approved:

Medicine

- (1) University of Oregon Medical School - Dr. Frank B. Queen - "Evaluation of Body Content of Radium in Individuals With No Known Exposure" - \$845.00
- (2) Army Medical Center, Washington, D. C. - Major G. H. McDonnell; Lt. Col. R. D. Maxwell, et al - "Antibiotic Therapy in the X-ray Irradiation Syndrome" - \$7,475
- (3) Sloan Kettering Institute - Dr. Rulon Rawson - "Physiological Effects of Irradiation in Patients Receiving Large Doses of Iodine 131" - \$40,000
- (4) University of North Carolina - Dr. G. C. Kyker - "Tracer Studies and Irradiation in Dental Metabolism" - \$4,500
- (5) Memorial Hospital, New York City - Dr. Helen Woodward; Dr. C. P. Rhoads - "Measurement on Effects of Irradiation on Bone and Bone Phosphatase Activity" - \$3,184

- (6) University of Washington (Seattle) - Drs. D. J. Hanahan; H. J. Daubon; R. Williams - "Synthesis of Carbon 14 - Labeled Diethylstilbestrol and a Study of its Metabolism in the Body" - \$13,200

Biology

- (1) Lankenau Hospital - Dr. Grace Medes - "Origin and Fate of Amino Acids in Plants and Animals" - \$12,000
- (2) University of Wisconsin (Institute for Enzyme Research) - Dr. David E. Green - "Studies on the Cyclophorase System of Animal Tissues" - \$79,400
- (3) University of Georgia - Dr. Henry W. Schoenborn - "The Production of Mutant Strains of Euglenoid Flagellates and Their Use in the Study of Carbon Dioxide Fixation Processes" - \$4,935
- (4) Fish and Wildlife Service - U. S. Department of Interior - Dr. Walter A. Chipman - "A Survey of the Accumulation of Radioactivity in Marine Invertebrate Animals" - \$24,500

b. Proposals declined since September 10, 1949:

- (1) University of California - Dr. L. M. K. Boelter - "The Thermodynamics of Conversion of Sea Water"
- (2) Cedars of Lebanon Hospital (Los Angeles) - Dr. H. L. Jaffe - (a) "The Concentration of C_{14} Compounds in Neoplasms" - (b) "Radioactive Gold Sodium Thiosulfate in Arthritis".

Waste
Disposal

Waste Disposal. Dr. William F. Bale, of the University of Rochester, who has recently been appointed Chief, Waste Disposal Program of the Division of Biology and Medicine, briefly outlined the Waste Disposal Program. He stated that the program has two separate phases, one the disposal of off-project wastes and the other the disposal of on-project wastes.

Inasmuch as this is an accumulating problem and so diversified, the Committee suggested to Dr. Bale that a paper be prepared on the biological aspects of waste

proposal for their orientation and study at the meeting to be held in January.

In the course of the discussion it was suggested that a paper be prepared for release in a scientific journal which would be concerned not with the practical aspects of waste disposal control but which would point out the use of biological indicators and biological accumulators. This will receive further consideration.

Cancer
Program

Cancer Program. Dr. Holland summarized the development and proposed activities of the cancer program of the Oak Ridge Institute for Nuclear Studies. Dr. Holland stated that the Institute has a medical advisory board representing the Southern medical schools, which assists Dr. Brucer in formulating and reviewing his program. Dr. Brucer and Dr. Pollard reviewed several aspects of the program at the Institute. They spoke of the interest displayed by the Southern medical schools in sending internes for study in the programs. It is anticipated that the laboratory will be completed in February and patients received soon after that time.

Dissemination
of
Information

Dissemination of Information. A full discussion was held on the dissemination of information. It was the opinion of the Committee that knowledge except that which falls into classified areas for reasons of security should be free to the public. It was further stated that knowledge will make people free of fear and superstition

rather than otherwise.

Mr. Townsend explained the functions of the Public and Technical Information Service in relation to the dissemination of information.

AFTERNOON SESSION

Biology Program - Oak Ridge. Dr. Hollaender presented the biology program outlining briefly the research that is being carried on in each unit. The personnel of the Division total approximately 100 persons, consists of 27 M.D.'s and Ph.D.'s, 16 at the Master's level and about 30 at the Bachelor's level, with the remainder technical personnel. The Committee was interested in the cooperation being given by the Southern universities in supplying research participants to the program.

Dr. Hollaender urged that security restrictions be lessened so as to permit selected foreign visitors to visit the laboratory. This would encourage the personnel in the Biology Division and give them a feeling that they were in contact with the best scientific work in the world.

Health
Physics
Program

Health Physics Program. Dr. Karl Z. Morgan summarized the work now being undertaken in the units of the Health Physics Division with special emphasis placed on Survey Monitoring including instrument development and research.

Dr. Morgan stated that the Health Physics fellows

seen to be better prepared than previous groups. However, it was interesting to learn that the previous group had done very well in job placement where they can make contributions in the field of health physics.

Isotope Program

Isotope Program. Dr. Aebersold reviewed the status of the isotope program. He brought to the attention of the Committee a reference pamphlet called "Isotopes, A Three Year Summary of U. S. Distribution" which includes a list of 1850 papers reporting scientific work performed which have been done with isotopes supplied by the Commission. The Committee was interested in the statement that the rate of growth of radioisotope shipments from January 1, 1949 to June 30, 1949 were nearly double the number of shipments during the corresponding period in 1948 and triple the 1947 figure.

Also, they were pleased to learn that the Commission has adopted the general policy of obtaining the widest possible use of isotopes by qualified recipients and that they are planning a staff study dealing with the factors now limiting distribution.

Cyclotron-
Produced
Isotopes

Cyclotron-Produced Isotopes. Dr. Aebersold stated further that the Commission has made contract agreements with cyclotron laboratories at MIT, University of Pittsburgh, University of California and Washington University to prepare certain long-lived radioisotopes

Civil
Defense

producible only in a cyclotron for distribution through the Commission's isotope distribution program.

Civil Defense. Mr. Bowman reviewed the status of the civil defense program. A full discussion followed and the following statement was unanimously approved for inclusion in the minutes:

"It is the sense of the Committee that the AEC should not accept responsibility for general defense activities and that its responsibility should be limited to the provision of factual information concerning the unique effects of atomic energy upon personnel and materials.

In view of the fact that certain restricted documents contain information which may be of value in planning for civilian defense, it is recommended that these documents be declassified to the effect that this is in keeping with security."

Fellowship
Program

Fellowship Program. The Chairman read the following letter dated November 2, 1949 and appendix from Dr. A. N. Richards, President of the Academy of Sciences, which was a reply to a letter from Mr. Carleton Shurr dated September 27, 1949 regarding the continuance of the fellowship program:

Dear Mr. Wilson:

In your letter of 27 September 1949, addressed to the National Academy of Sciences, you have stated that recommendations of the National Academy of Sciences and the National Research Council concerning future scope and character of the Atomic Energy Commission fellowship program would be welcomed. The question has accordingly been made the subject of lengthy discussion by the Council of the Academy,

the opinions of the entire membership of the Academy have been solicited, and at two business sessions of the Academy at its meeting in Rochester, October 24-26, the question was thoroughly debated and the sense of the meeting ascertained.

The attached statement was drawn up by the Council of the Academy and submitted for discussion to those members of the Academy who attended the autumn meeting. It may be regarded as representing the opinion of the Council and of a large majority of the members who have had the opportunity of discussing it.

It might clarify your understanding of the second part of the second sentence of the second paragraph if I tell you that the wording of that sentence is a last-minute change made at an informal meeting of the Council from a sentence which read as follows: "We have grave doubts whether a program thus restricted is more in the national interest than no such broad AEC fellowship program at all."

The part of the statement entitled "Annex" is to be regarded as an appendix which might be made the subject of discussion with you.

Respectfully yours,

Alfred N. Richards
President

Appendix

Statement concerning the AEC Fellowship
Program Prepared by the Council of the
National Academy of Sciences and submitted
by its President

The Council of the National Academy of Sciences has considered the request of the Atomic Energy Commission for advice as to the scope and future of the fellowship program, in the light of the restriction placed upon it by the amendment to the Independent Offices Appropriation Act of 1950.

In our opinion the requirement of FBI investigation and Atomic Energy Commission clearance is ill-advised for those fellows who neither work on secret material, nor

are directly preparing for work on Atomic Energy Commission projects. We are convinced that by this restriction the value of the broad program has been greatly reduced; we have grave doubts whether the continuance of the Atomic Energy Commission Fellowship Program thus restricted is in the national interests. In these views we concur with the opinion expressed by the Executive Board of the National Research Council.

Since we hold these views, we believe that the National Research Council should not accept the responsibility for administering the altered fellowship program.

We hope that, to the extent to which the Atomic Energy Commission continues the program, it will find it possible to administer it without our help. Nevertheless, in the measure in which our advice in one form or another may prove necessary to the Commission, we recognize an obligation to provide such advice.

We would further urge the Atomic Energy Commission to take all proper steps to see that these restrictive provisions be omitted from future legislation. We in turn shall make known to the Government of the United States the reasons for the views here expressed.

ANNEX

1. We hope the Atomic Energy Commission will itself operate this program.
2. We regard it as a proper function to advise on setting up Atomic Energy Commission panels to select fellows.
3. If it is not possible for the Atomic Energy Commission to set up panels, the National Research Council will upon request make an assessment of the qualifications of the fellows and a report on the progress of their work.
4. Announcements should be made by the Atomic Energy Commission and the extent of the participation if any of the National Research Council should be made clear.
5. In announcing the fellowships we believe it the duty of the Atomic Energy Commission to see that the prospective fellows are told the nature of FBI investigation and the criteria by which decisions are to be made by the Atomic Energy Commission.
6. Our special misgivings about FBI investigation and Atomic Energy Commission clearance do not apply to candidates for secret work.

After a full discussion the Committee unanimously reaffirmed their previous action that "a Fellowship Program be continued."

The Committee agreed to supply Dr. Warren with a statement that will reflect their views on the continuance of the program for transmittal to the Commission for their consideration.

Next
Meeting

The next meeting was scheduled to be held at the University of California, Los Angeles, and California Institute of Technology, on January 13 and 14, 1950.