

MINUTES
ADVISORY COMMITTEE FOR BIOLOGY AND MEDICINE
THIRTY-SIXTH MEETING

Held at
Chicago, Illinois

26

March 13 and 14, 1953

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MINUTES

The thirty-sixth meeting of the Advisory Committee for Biology and Medicine was held at the Argonne National Laboratory and the Argonne Cancer Research Hospital on Friday and Saturday, March 13 and 14, 1953.

Attendance

Committee Members: Dr. Alan Gregg, Chairman
Dr. Joseph T. Wearn, Vice-Chairman
Dr. Edward A. Doisy
Dr. Giocchino Failla
Dr. Elvin C. Stakman
Dr. Curt Stern
Dr. Shields Warren

Former member and consultant: Dr. A. Baird Hastings

Staff of AEC: Dr. John C. Bugher
Dr. Charles L. Dunham
Dr. Paul B. Pearson
Dr. Karl M. Wilbur
Capt. Harry H. Haight, USN
Mr. Beverly Thompson
Mrs. Frances R. Montgomery, Secretary

Visitors from ANL and Argonne Cancer Research Hospital: Dr. Lowell T. Coggeshall
Dr. R. J. Hasterlik
Dr. Leon O. Jacobson
Dr. Austin M. Brues
Dr. L. D. Marinelli
Dr. G. V. LeRoy
Dr. W. H. Zinn
Dr. Norman Hilberry
Dr. E. L. Powers
Dr. D. M. Gardiner

Friday, March 13, 1953

Argonne National Laboratory

Division of Biological and
Medical Research

The Committee visited the new Biology Building and spent an interesting day. Dr. Brues and his staff outlined the activities of the various programs and the facilities of the laboratories were inspected. Many commendations were expressed

on the new building with its excellently planned laboratories. It was apparent to the Committee that the laboratories had been planned with vision and that the facilities will lend themselves to constructive research. Certain "programmatic" areas of research were discussed which included neutron toxicity, radium toxicity and other internal radioelement toxicity. Dr. Brues explained that a chronic gamma ray toxicity program has been planned and it will be initiated in a few months; in the meantime, a small program on soft X-ray effects on large animals is to be carried out. (Note: A copy of the outline of activities under the Division of Biological and Medical Research may be found in Central Files of the Division of Biology and Medicine.)

Saturday, March 14, 1953

Argonne Cancer Research Hospital

The meeting of the ACRM was convened at the Argonne Cancer Research Hospital at 9:00 A.M. with the Chairman of the Committee presiding. Dr. Coggeshall, Dean of the Division of Biological Sciences, University of Chicago, welcomed the Committee as the first official body that had visited the Hospital. He spoke of the organization and described the activities of the four major divisions. Dr. Coggeshall stated that Dr. Jacobson, as Director, and Dr. Hasterlik, as Associate Director, will be responsible for the conduct of research and the operational plan of the Hospital.

Minutes of meeting of January 9
and 10, 1953

The Chairman presented the draft minutes of the thirty-fifth meeting held on January 9 and 10, 1953, for consideration. Dr. Stakman moved, and Dr. Failla seconded, the motion that the minutes be approved subject to review of any points

that may be raised by letter with Dr. Bugher at a later date. The motion was approved unanimously.

Report on visit to Eniwetok
by Dr. Wilbur

Dr. Bugher reviewed the discussion that took place at the Committee meeting held in January concerning the possibility of establishing a marine biological field of study program at Eniwetok. He stated that in view of that discussion Dr. Wilbur, in association with the Office of Naval Research and the Pacific Science Board, took a committee of outstanding marine biologists to Eniwetok so they could see first hand and give an independent evaluation of the proposed project. Dr. Wilbur reported that the group reviewed the facilities that were presently available for a small biological station and they also made a brief biological survey of two of the outlying islands - Japtan and Rigili.

The possibilities for biological studies were found to be very good, and particularly so for studies of ecological changes related to test activities. It was stated by Dr. Wilbur that the physical facilities on Perry Island are excellent, i.e., air-conditioned building (unoccupied), sea water can be made available, maintenance of buildings and equipment presents no problems, boats are available with crews and maintenance, with living accommodations unusually good and an excellent mess for \$10.50 per week. It was brought out that there are no facilities available for families.

Dr. Wilbur advised further that if use is made of the building that is now available, it would have to be released for the test activity program, or for a period of three or four months a year. The visiting group felt this was a serious consideration. In view of this situation

the AEC representative stationed at Eniwetok suggested that it would be well to consider putting up a small building for the exclusive use of a biological station and equipment. Personnel could utilize such a building throughout the year. It was estimated that such a building, including plumbing and air conditioning, would not exceed a cost of \$15,000.

After a full discussion and in view of the many problems that would be encountered, the Committee stated that before proceeding with plans for establishing a biological station at Eniwetok that it should be ascertained the extent of interest of biologists in having such a station made available. Specifically, the Committee would like to have an indication of scientific investigators who might wish to undertake biological studies at Eniwetok during the next year and a half. Following this discussion the Committee voted unanimously that Dr. Bugher should interpret their feeling as one of real interest in the project and that he should feel completely free to formulate a plan of procedure that will involve the expense and involve decisions in point of organization and report to the Committee at the next meeting if possible.

Dr. Bugher was of the opinion that a very specific proposition which involves particular people, particular programs, and cost estimates could be prepared and made available by the next meeting.

A list of Eniwetok facilities is attached as Appendix "A".

Status of 1954 budget

Dr. Bugher provided the meeting with an informative review of the status of the 1954 budget as it pertains to the AEC and particularly to the Division of Biology and Medicine. He told of the requirement

that all construction which was not immediately required for the prosecution of the program itself had to be suspended even though authorized; and that construction on certain projects, even though already under way, had to be stopped pending the current review by the Bureau of the Budget. Dr. Bugher advised the Committee that in view of the specific orders of curtailment, the 1954 budget estimates do not contain any provisions for major construction. Two tables depicting the budget estimates, entitled "Summary by Programs and Locations" (Table I) and "Summary by National Laboratories and Major Programs" (Table II), for the fiscal years 1952, 1953 and 1954, were carefully studied, and they are included as part of the minutes.

Dr. Warren commented that the summaries presented seemed like a very "firm set of figures and it also means, coming in this form as far along in the budget year as this, that there has been extraordinarily sound work done on the part of the staff, of the group in Washington, to get as nearly as possible a rock bottom figure."

In further discussion on the programs, Dr. Wearn stated: "I think it would be too bad to let this go by without appreciation expressed on our part at least and a recognition of the fact that our two budget makers, Dr. Warren and Dr. Bugher, have kept these figures in a realistic area, free from padding in the past. It has won the respect of the Bureau of the Budget and therefore brings it up to the present time in such a satisfactory state."

Next meeting

Dr. Bugher advised the Committee that the next meeting is to be held at Chalk River, Ontario, Canada, on May 8 and 9, 1953.

The Committee went into Executive Session at 11:00 A.M., and the meeting adjourned at 11:30 A.M. for the purpose of inspecting the facilities of the Argonne Cancer Research Hospital and to attend the opening ceremonies.

Argonne Cancer Research
Hospital

The Committee participated in the ceremonies opening the new cancer research facility, which is the culmination of several years of hard work and intelligent planning of so many people.

The contribution made by the AEC in providing the funds for the Hospital designed especially for cancer research using radioactive materials opens a new era of scientific approach and is a true development of the atomic age.

Dr. Jacobson conducted the Committee on an inspection of the facilities while his staff outlined the research programs.

A dedication luncheon was held at the Goldblatt Memorial Hospital with Dr. Coggeshall acting as Chairman. Dr. Bagher introduced Dr. Warren and said that Dr. Warren would speak for Mr. Dean and the AEC, and that Dr. Gregg would speak for the AEC. Copies of Dr. Warren's and Dr. Gregg's remarks are attached as Appendices "B" and "C". The dedication ceremonies were concluded at 3:00 P.M.

LIST OF ENIWETOK FACILITIES

Laboratory

Temperature and humidity controlled room; running sea water (Transite lines) and aquaria; dark rooms and photographic equipment; constant temperature baths; incubator; centrifuge. No microscopes. Other equipment depending upon needs.

Transportation

We hope that this will be provided by the Navy without charge. At present there is daily transportation of personnel and equipment between San Francisco, Honolulu, Kwajalein, and Eniwetok.

Boats

Available for transportation to islands of Eniwetok atoll.

Instrument shops and machine shops

Services available throughout the year.

Living Accommodations

These are very satisfactory. An excellent mess at \$10.50 per week, no charge for room. No families or female investigators permitted at Eniwetok.

Clearance

At least a "P" clearance will be required, and "Q" clearance would be highly desirable as it will permit the individual to remain at Eniwetok during preparations for test activities. "P" clearance requires at least one month and "Q" at least three months for processing.

Recreation facilities

Library, sports, movies nightly.

THE ARGONNE CANCER RESEARCH HOSPITAL

Shields Warren, M.D.

(For Release 1 P.M., March 14)

We are today dedicating this Argonne Cancer Research Hospital because of the faith of the American people that God in Whom we trust has created an orderly universe, has endowed man with the power to comprehend that universe, and that as man gains that knowledge he can control and remedy disorder.

Cancer is basically a disordered growth of cells. Already certain forms are being cured, others being controlled. The ideal control is not destruction of tissue, but channeling of the abnormal back to normal.

As new scientific tools are found, people look to the scientists to evaluate those tools in terms of human welfare. That evaluation is one of the major purposes of this hospital. It is symbolic of modern medicine that this hospital does not stand alone. It is physically a portion of a larger hospital, a medical school and a great university and is intellectually a link between the medical school and the Argonne National Laboratory of the Atomic Energy Commission, bringing to the sufferers from cancer those means of diagnosing and treating cancer that have already been discovered and offering the hope of new means.

Just as this hospital is linked with others, so are the problems of cancer, its varied causes, some known, some unknown, its recognition and its cures, linked to the complex problems of growth, differentiation and organization of cells.

Some not wholly familiar with the field of atomic energy may ask, "Why is the Atomic Energy Commission interested in cancer?" The oldest

occupational cancer known to man developed in the lungs of the miners of Schneeberg and Joachimstal, due to the radioactivity liberated by the uranium in the ores. In the words of the Atomic Energy Commission's Advisory Committee on Biology and Medicine, "Cancer is a specific industrial hazard of the atomic energy business." The skin cancers, the leukemias of the early radiologists, the leukemias present today in some of the survivors of Hiroshima and Nagasaki are vivid reminders that uncontrolled radiation can cause cancer, just as hundreds of people now living can attest that controlled radiation cures cancer.

The Atomic Energy Commission, in dealing with amounts of radioactivity staggering to the imagination, must protect its workers and its neighbors, and under its basic injunction from the people it must, in the words of Vice-chairman Smyth, see "that atomic energy is developed and utilized to improve the public welfare".

Through the wisdom of the late Senator McMahon, the basic atomic energy act in Section 3 charges the Commission with the utilization of fissionable and radioactive materials for medical, biological and health purposes. In the first appropriation act the 80th Congress specifically made available sums for cancer research work, and the Joint Committee of Congress on Atomic Energy under both Republican and Democratic Congresses, chaired by Senator Hickenlooper and by the late Senator McMahon, has consistently encouraged this field of research.

In establishing its program in cancer research, the Atomic Energy Commission recognized that private philanthropy and public social conscience had already made significant advances in the struggle against cancer, that its program should complement rather than compete with existing efforts. This it has done, and is turning toward human wellbeing its tremendously powerful sources of radiation and tools for research. Symbolic of this

mutually helpful approach is the intimate relationship of the Argonne Cancer Research Hospital, the Goldblatt Hospital, and the University of Chicago Clinics.

— This hospital, operated by the University of Chicago, provides facilities for clinical investigation, not for routine medical care, to determine how radioactive materials and other sources of radiant energy can best be used in cancer diagnosis and therapy. Near the Argonne National Laboratory, partly staffed by members of that Laboratory, the newest developments in atomic energy will be available for its patients. Although a part of and operated by the University of Chicago, the hospital staff collaborates with those of the Argonne National Laboratory and those institutions that participate in the Argonne program. The Atomic Energy Commission has found that this type of cooperative effort has been of great advantage both at the Oak Ridge Cancer Hospital with its affiliated universities in the south and at the Brookhaven Hospital with its associated universities in the east.

Directly related to effective care of patients and the development of new and improved methods of treatment is the training of the highly skilled personnel needed for the complex procedures. This training will be provided and will serve to disseminate the knowledge gained here. In addition, some members of the permanent staff may be appointed from the staffs of the Argonne participating institutions.

To broaden the usefulness of the Hospital the research activities may be entered into by qualified members of the participating institutions, provided these activities are properly coordinated with the main program and are approved by the Dean and the Medical Advisory Committee. All routine medical responsibilities are assumed by the University of Chicago.

This approach to cancer research gives opportunity for the effective development of new advances in the cancer field, and provides a means by

which the facilities of government may be made available to both private and state universities, that the best aspects of all these may speed the potential applications of atomic energy for the benefit of the cancer patient.

The challenge is now to the staff to explore, to apply, to refine, to teach the benefits and limitations of these new sources of energy. We look to the Director, Dr. Jacobson and his associate, Dr. Hasterlik, and trust that they and their colleagues will meet this challenge. We wish them success, for their success is that of all.

Chancellor Kingston, Dean Coggeshall, Ladies and Gentlemen:

It is said to be the hallmark of the best professions that they strive to do away with the very conditions that maintain them. In this wise, priests, rabbis and ministers seek to prevent the very waywardness, sorrow and spiritual chaos that require professional help ad interim. Lawyers, by their counsel, impartiality, reasoning and persuasive rhetoric, settle matters out of court and thus forestall a more reckless and flamboyant recourse to the employment of their eager talents. Teachers do themselves down by organizing correspondence courses wherein the pupil is self-taught, and progressive education reaches its zenith in the suicide of the instructor. Political theorists -- in occasional contrast to politicians--invite oblivion by insisting that a people is best governed when it is least governed; and even politicians, under some measure of stress, take gallant risks in hurling boomerangs marked "throw the rascals out" right into the teeth of November gales.

Doctors are no exception to this rule: indeed, the medical profession has so sharply reduced the incidence and severity of many diseases that in order to triumph similarly over the remaining problems the physician must call for help from physicists in his effort to commit professional suicide.

A somewhat similar paradox attends the life of a new hospital building. By so much as it succeeds, it accumulates proud scars and unrepentant calluses. Its happy destiny is to build a demand unbelievably beyond its capacity to serve and still survive. In just the measure the workers in this new building transform the diagnosis and the treatment of cancer, the building will become worn and torn and out of date--and that, I submit, is a splendid reverie in all this freshness of building and perfection of contents.

Indeed, reflection on the future of this new structure brings me to the most significant, the most heartening and the most appropriate thing I can say to you. It is simple. It is direct. And it is a matter of the mind and spirit. Speaking for the Advisory Committee of the Division of Biology and Medicine of the Atomic Energy Commission, I say to you that we regard this research unit with the liveliest satisfaction, with eager expectation, with what I hope time will prove to be intelligent understanding and loyal sympathy--and with candid dependence on the University for its response to our confidence. If there were some symbolic ritual that could convey and so reinforce all these thoughts and feelings, this faith and these hopes, I would witness its performance in rapt attention. The comfort of rites and rituals is that they let you remain speechless--which is sometimes the highest kind of eloquence.

Perhaps, through mischance or human frailties, this effort will fall short. But perhaps we are attending today an occasion whose significance will prove to reach far beyond our under-exercised imaginations. We are embarked on an adventure, an adventure that will be the better for every talent enlisted, for every effort spent, for every jealousy curbed, for every gift given, and every abiding hope sustained.

March 14, 1953
Chicago, Illinois

Alan Gregg, M.D.