ADVISORY COMMITTEE FOR BIOLOGY AND MEDICINE
TO THE
UNITED STATES ATOMIC ENERGY COMMISSION
WASHINGTON 25, D.C.

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October 16, 1967

Dear Dr. Seaborg:

The AEC Advisory Committee for Biology and Medicine held its 120th meeting at AEC Headquarters on September 7-8, 1967, with all members present but one.

The principal matters discussed and the ACBM's views are:

High Altitude Sampling Program. Mr. J. Z. Holland, of the DBM staff, reported that HASP has contributed greatly to an understanding of the global behavior in the atmosphere of radioactivity from fission-bomb tests and to our basic knowledge of circulation in the normal atmosphere. Monitoring methods have been improved in sophistication, sensitivity, and scope, and routine monitoring has been reduced to a holding level.

In response to an earlier recommendation of the ACBM, other federal agencies have been canvassed for their interest in a continuing capability for high altitude monitoring. Although all the agencies indicated a considerable interest none at the present time is able to share the cost of the program, which in the past has been financed by the AEC. The ACBM believes that this capability for high altitude sampling should be continued and that its continuing contributions to our knowledge of the atmosphere, from surveys of naturally occurring substances such as radon and radon daughters, are of substantial importance even if man-made radioactivity becomes negligible. The ACBM also believes that the program should be periodically reevaluated with a view to reducing the total cost and to encouraging other agencies to help bear the expense.

Special Test Sites. The organization charged with finding a suitable site for underground nuclear explosions in Alaska is to be commended for the thoughtful exploration of sites which would ensure minimal upset of the ecology of the area. The ACBM believes that similar ecological studies should precede the selection of test sites everywhere.

Committee on Environmental Quality. The ACBM believes that it is timely to assemble and digest the mass of material on the effect of radioactive materials on environmental quality. The AEC has a prime responsibility

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in this respect and should continue working closely with the Department of Health, Education, and Welfare ultimately to prepare a tabulation of the effects of radiation in its dependence on concentration, duration, and frequency of exposure.

Atomic Bomb Casualty Commission. The Committee heard a brief report from Dr. Philip Cohen on his recent visit to ABCC in Nagasaki and Hiroshima. In view of the absence of Dr. Wyngaarden, who also visited ABCC recently, the Committee agreed to consider further recommendations as to long range plans for ABCC at a future meeting.

Workmen's Compensation and Record-Keeping. The members of the ACBM are not unanimous in their opinions concerning the value of the proposed reporting procedure and record-keeping. It is, therefore, deferred for consideration at a future meeting.

Film Badge Laboratory. The ACBM would strongly support a proposal for the establishment of a film badge laboratory for evaluation and standardization of film badge developing and dosimetry. An increase in the uniformity and accuracy of these methods, while not directly applicable to estimation of individual doses, would substantially improve the reliability of radiation monitoring techniques.

AEC-FDA Regulation of Radiopharmaceuticals. The ACBM, although recognizing the desirability of eventually transferring authority for regulation of radiopharmaceuticals to the Food and Drug Administration, is concerned that mechanisms for this transfer be established so that the orderly routine and experimental use of radiopharmaceuticals now established will be uninterrupted and so that the enviable record of safety and control established by the AEC will continue at the same high level under FDA auspices. In general, the ACBM endorses the Trowbridge Report recommendations.

Irradiated Sucrose. The questions of the toxicity and mutagenicity of products in irradiated sucrose are being investigated from both biological and chemical viewpoints. The biological studies, although not complete, so far indicate no mutagenicity, but do indicate some toxicity of irradiated, autoclaved sucrose solutions for bacteria and paramecia. There is evidence also of a chromosome-breakage capacity for cultured human leucocytes as previously found by others. The essentially negative results so far obtained are very valuable, indicating that safe irradiated foods may yet become a technical possibility.

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Chemical isolation and identification of the toxic factors are progressing. The ACBM believes that these studies should continue with all possible vigor.

The next meeting of the ACBM will be held November 9-10, 1967, at which time the program of the Health Physics Division at the Oak Ridge National Laboratory will be reviewed.

Sincerely yours,

Earl L. Green

Earl L. Green, Chairman
Advisory Committee for Biology
and Medicine

Dr. Glenn T. Seaborg
Chairman, U. S. Atomic Energy Commission
Washington, D. C. 20545

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