

REPOSITORY NARA Atlanta ArchivesCOLLECTION RG 326 68A583(BOX No. 36) Research and MedicineFOLDER Request for Radioactive
Materials for InstitutionsOctober 29th
1945

Major General L. R. Groves
War Department
Post Office Box 2610
Washington, D. C.

Dear Sir:

Subject: Distribution of Radioactive Isotopes for
General Research Work.

It has been well recognized that one of the most important outcomes of the Atomic Bomb Project may well be the development of methods for the large scale production of radioactive isotopes.

If some small fraction of the neutron flux at the Clinton Laboratories or at Hanford could be utilized for general isotope production beginning now, it would be one of the government's most important contributions to science. The application of radioisotopes in the biological-medical fields, as well as for physical, chemical and industrial uses, have thus far only been barely touched upon.

It is highly desirable to make these radioisotopes widely available for researches by responsible, competent investigators at the earliest possible moment.

While the eventual arrangements will undoubtedly be properly a matter for the new Commission, it appears likely that some time will elapse before a working procedure can be set up under the Commission.

This question has been discussed, subject to security limitations, among members of the Isotope Research Committee. This group is composed primarily of representatives of the active research groups at the various universities and medical schools and from public and private institutions who are now using radioactive (and stable) isotopes for medical, biological and chemical researches.

Professor D. W. Wilson, Chairman of the Committee (University of Pennsylvania School of Medicine) wrote to Dr. Conant regarding this problem some time ago.

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As a member of the Physical Advisory Board I have been asked by the Committee to take up the matter with you. They ask me to express again the great service to research generally which would be given now if a system were set up at least to begin the distribution of radioactive isotopes. In general, members of the Isotope Research Committee have no appreciable knowledge of the production of radio-isotopes by pile methods except in a broad way unless they have been connected with the Manhattan Project.

The general principles of production of C^{14} , H^3 , P^{32} and S^{35} by neutron sources has been so generally known that no appreciable security violations should be involved in distributing reasonable quantities of these materials.

Fees

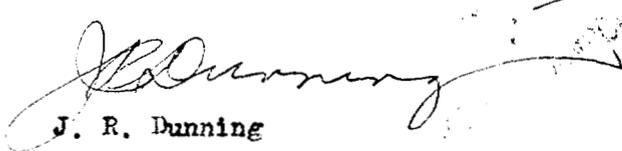
Most of the institutions will be able to pay some fee for isotopes, although if the materials could be distributed on the basis of need and importance of the researches, on a nominal basis, it would be a very worthwhile contribution of the government to research in this country.

Type and Amounts

The production of many of these materials is being accomplished now by cyclotrons. However, the yield of C^{14} , for example, is so low that some of the most important researches in fields such as metabolism and cancer simply cannot be carried out. C^{14} and H^3 are at present probably the two most important isotopes which could be distributed. The amounts required are normally very small for most researches. Less than 100 microcuries of C^{14} properly used are often sufficient. With the newer techniques one function of a review committee might well be to determine whether the proposed amounts required for a particular research adequately take into account the probable dilution factors and detection efficiency.

The Isotope Research Group which is open to all research workers in the field and which at present constitutes probably the most active research group who are able to use the isotopes immediately, would be glad to cooperate in any way individually, or as a group, with the government in working out methods of handling this important problem. If I could be of any service, I should be only too glad to do so.

Sincerely yours



J. R. Dunning

JRD/dm

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