

HARVARD UNIVERSITY
 MEDICAL SCHOOL
 DEPARTMENT OF BIOLOGICAL CHEMISTRY

Dr. Shields Warren
 N. E. Deaconess Hospital
 Boston 15, Massachusetts

Dear Dr. Warren:

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326 U.S. ATOMIC ENERGY	
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The fellowship program of the Atomic Energy Commission was undertaken in order to provide at the earliest possible moment a pool of competent, well trained scientists who could carry forward research in the basic and applied sciences.

This was, and still is, a National need of the greatest importance for the maintenance of our leadership in science - and hence, for the maintenance of our National security.

The training of these young scientists under the A.E.C. fellowship program was not necessarily linked with the classified work of the Commission. However, provision was made to ensure investigation and clearance for all of those fellows whose work required that they have access to classified information. When the training and work of the fellows was entirely separate from classified work, the conditions of their training were the same as those of other National Research Council, Public Health Service, and other foundation fellowships.

We assumed that all applicants for fellowships were loyal Americans. Doubt has unfortunately been cast on the validity of this assumption. It is necessary that this doubt be removed, and the Congress has seen fit to require an F.B.I. investigation of those holding A.E.C. fellowships. One may properly ask whether this requirement is a desirable one, and what effect it might be expected to have on the A.E.C. fellowship program.

Before attempting to answer these questions, I shall express my idea of the difference between secret and open research in general, and as applied to the work of the Atomic Energy Commission in particular.

Scientific progress - including inventions, discoveries, and additions to knowledge - flourishes best in an atmosphere of freedom and the free exchange of ideas. From the earliest times, this has been the atmosphere of research in the natural and medical sciences. Our factual information and the laws governing the behavior of inanimate and animate matter have come from investigators of all peoples. It has

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never been the monopoly of any one group or nationality. It has been open research - openly arrived at.

On the other hand, applied science has always had its secret aspects. New inventions, discoveries, drugs, and techniques are usually kept secret until patents or publication can protect the interests of the owner of the invention or discovery. These interests may be monetary in the case of the individual or industry - they may concern military security in the case of a nation.

The United States owns the development which resulted in the production of the atomic bomb. For the security of our nation, it is fitting and proper that the know-how of atom bomb production be kept secret at this time - and for as long as atom bomb warfare is a threat to the peace of the world.

Neither the United States nor any other nation has ever owned the physical and chemical knowledge which has led to the utilization of atomic energy. From the standpoint of scientific knowledge in general, atomic energy is simply another useable source of energy - and, as in the case of other forms of energy, will ultimately be harnessed for the benefit of mankind. Benefits have already been derived by industry and medicine from the use of the by-products of atomic fission - the radioactive isotopes.

Even more important than the practical application of the use of isotopes has been the added knowledge gained by medical and biological investigators about disease and how cells work. This is, and must continue to be, free research, carried forward in an atmosphere of the free exchange of ideas.

There are thus two quite separate and distinct aspects of the utilization of atomic energy - on the one hand, the applied and properly secret aspects; on the other, the basic and properly open aspects.

By the Act of Congress establishing the Atomic Energy Commission, the Commission became the one responsible agency for both quite separate and distinct activities. It has recognized this twofold responsibility, and it has kept its secret and developmental activities separate from its open and basic research activities.

In the field of biology and medicine, almost all of the activities involving the use of atomic energy are in the field of open and basic research. Only a small portion of its activities are in the category of applied and secret research.

It was recognized at the start of the Division of Biology and Medicine of the Atomic Energy Commission that the training of more scientists in the natural sciences of physics, chemistry, and biology,

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and in the basic medical sciences of biochemistry, biophysics, physiology, microbiology, etc. was essential, if an energetic program of research was to go forward in this country. And only by having a pool of well trained scientists to draw from for the special, applied and secret work of the Atomic Energy Commission could the Commission hope to discharge its responsibilities under the Atomic Energy Act.

Hence, a fellowship program was undertaken on a large and nation-wide scale. Tacitly, it recognized its twofold responsibility in setting up this program. It made awards of fellowships to those qualified and cleared to undertake secret study and work; it made awards of fellowships to those qualified to undertake non-secret study and work. These latter fellows were selected and their fellowships administered on the same basis that all fellowships are awarded and administered by other agencies and foundations.

To return, then, to the questions raised in an earlier paragraph, it is my opinion that to require an F.B.I. investigation and a proof of loyalty not required by all other citizens who have fellowships for study and non-secret scientific work is unfortunate and undesirable. To continue to require the most searching proof of character, loyalty, and discretion of all those engaged in secret work is both necessary and desirable.

However, the need to increase the supply of competent scientists in order to maintain our leadership in science is unaltered. I, therefore, hope that, in spite of the requirement of investigation of all Atomic Energy Commission Fellows, the training program be continued without curtailment.

Sincerely yours,



A. Baird Hastings

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