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THE FEDERAL ROLE IN MEDICAL RESEARCH: OBJECTIVES RE-EXAMINED

I am greatly honored to have been invited by the Alpha Omega Alpha Honor Society to speak before this distinguished assembly. In years past, I understand, outstanding men in fields of basic science have spoken from this rostrum. Tonight I am speaking to you because -- although I am a layman -- I have been fortunate enough to have spent much of my career close to science -- a relationship made possible by the increasing interest of the United States government in science generally, and in the biomedical sciences in particular.

As we are all well aware, in the course of the past two decades the Federal government has taken an increasingly important role in supporting scientific research in the United States. From medicine to missiles, large amounts of public funds have been directed toward broad and diverse areas of scientific and technical development. It is of course the area of medical research and development which -- I am sure -- is of the greatest interest to you.

Recently an independent Presidential study committee put its stamp of approval on the research support activities of the National Institutes of Health -- which the President has quite accurately characterized as "the leading edge" of our national effort to conquer disease. The NIH is -- as many of you know -- currently providing 40 percent of all the funds spent for health research in the United States. The Committee found that NIH -- and I quote -- "constitutes a sound investment for the American people" -- and it recommended its continued support. This judgment is all the more impressive because it was made up of 13 distinguished non-governmental scientists and administrators, assisted by 95 others who served on specialized evaluation panels.

Undoubtedly, the NIH will continue to receive the support the Committee recommended -- I personally believe that it should receive more support than it has in the last two years in a wave of economy by the Administration. But in the next few years we are going to see what many people will regard as a departure from the traditional concepts of research support. The recent proposals of the President's Commission on Heart Disease, Cancer and Stroke -- and the pending legislation which would implement them -- expand our approach to medical support from Federal funds and will add to the dimensions of future Government-science relations. It is of this future I wish to speak tonight.

At the outset of my discussion I want to make one thing clear: this is no radical new departure from traditional support of research by the Federal government. It has never been the intent of Congress to build within this country the greatest medical research organization in the world -- solely for the sake of research. The NIH functions under a clear mandate to promote and conduct research and studies -- and again I quote -- "relating to the cause, diagnosis, treatment, control and prevention of physical and mental diseases and impairments of man." Research results which are found in the laboratory but which never reach the patient are of interest to science, not to humanity. The problem before us today is to bridge the gap between the laboratory and the patient -- and in doing this it is important to remember that we are expanding an effort long underway -- and in which the Government has a vital role -- to improve the health of the American people.

Before discussing what is to come I would like for a moment to review briefly the present support system -- for, despite the Committee report I mentioned earlier, there are still critics -- many of them loud and outspoken -- who think the Federal role in research is already too large, and that we have sacrificed the freedom of scientific inquiry and who foresee strict Government control implied in further legislation. Many of the more irresponsible critics may be safely disregarded, but some deserve to be answered.

To me, the development of the present relationship of Government and science was a natural and inevitable one. However, with large sums of money being allocated by the Government to non-Government institutions, the question of government control does invariably arise.

The critics ask: "How can science flourish freely with Government aid? How can science help but be corrupted by Government support? Won't scientists virtually become the slaves of bureaucratic masters?" These critics tell us that nothing can be gained from the Government-science alliance but failure -- the loss of our traditions of scientific excellence.

To me such criticisms are incredible, for the record is so clear, the facts so plain, in demonstrating that just the opposite is true. For it is obvious that medical science <u>has</u> flourished with government support. The offer of a helping hand does not necessarily indicate a desire for autocratic control.

To illustrate, let me note a few of the results of the Government's interest in medical science:

> New research facilities -- hospitals, laboratories, animal production centers, research service facilities
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> Important advances in open heart surgery, and cancer cell detection...Planning is now underway for a national tissue-typing program to pave the way for successful organ transplantation.
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> Accumulating evidence of a virus-cancer link, discovery of the metabolic mechanism of galactosemia...the rapid detection test for phenylketonuria (PKU) which is rapidly being adopted as a standard hospital procedure...the development of a vaccine against adeno-4-virus, the chief cause of respiratory illness among military personnel....
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> Another result - the collection of a wealth of health statistics including vital epidemiological surveys.

These are hardly examples of failure. These surely do not indicate a sacrifice of scientific excellence. And these are only a mere handful of examples. By availing himself of government support, the scientific investigator is actually freer than he has ever been -- free to devote most of his time and intellect to the important problems of research, his mind less preoccupied by financial worries. The scientist is also free to experiment in areas which may not have immediate practical value, but which add to the store of basic knowledge upon which others may draw for the medical miracles of the future.

Charges of Government control of research simply reflect ignorance of the general purpose of the grants-in-aid program and of the mechanisms of the granting process.

By using what is called the "peer" system, where grant applications are approved by non-government members of the scientific community, assurance is given that the best interests of science are served.

As the recent report of the Presidential Committee concluded -- and I quote: "The procedures for deciding on the traditional research grants are eminently satisfactory. They do the job well, and the scientific world accepts the validity of the judgments and the justice of the procedures."

It is my hope that this long awaited Report will help to end, once and for all, the highly speculative and unwarranted criticism by irresponsible individuals which is levelled from time to time at Government support and administration of biomedical science.

Let us turn now to the future, and the not-so-new departure I spoke of earlier.

In his health message to Congress last January, President Johnson proposed a national program aimed at conquering our three greatest killer diseases -- heart disease, cancer, and stroke -- diseases which account for seven out of every ten deaths in the United States each year. The President based his proposals on the reports and recommendations of a special Commission he had appointed a year earlier to study the possibilities for a concentrated attack on these killer diseases.

Although the Commission's report recognized the need for the continuation and expansion of medical research, most of its recommendations were concerned with putting knowledge we already have to use -- applying the things of which we are now capable without further scientific advance. It is true that here we must proceed along a heretofore untravelled road -- for we are talking now not of research support only but of widespread, large scale, support of the application of present knowledge.

To help close the wasteful gap between capability and application, I have introduced into the House a bill to aid in the establishment of regional medical complexes for research and treatment in heart disease, cancer, and stroke. An identical bill has been placed before the Senate by my colleague, Senator Lister Hill of Alabama.

These centers will enable the medical profession and medical institutions of the Nation, through a grants program, to make available the latest advances in the diagnosis and treatment of these and other diseases.

The bill calls for an appropriation of $50 million for the first year and additonal sums for each of the next four years for grants to assist medical schools, hospitals, and other research and treatment institutions to plan, establish, and operate regional medical complexes. Each complex would consist of one or more medical centers, one or more categorical research centers, and one or more diagnostic and treatment stations.

The centers would be able to offer, among other services, open-heart surgery, advanced and very high voltage radiation therapy, and advanced disease detection methods. Their regional nature would enable every patient requiring such procedures to have access to them. Another advantage of the center would be the opportunity afforded practicing physicians to keep in physical touch with the latest medical knowledge and techniques and the most efficient methods. The centers will be a first step in bringing the benefits of research on a large scale to the people who so desperately need them.

Two other bills which Senator Hill and I have introduced are also concerned with problems related to the conquest of heart disease, cancer, and stroke as well of other tragic diseases. The first of these is concerned with the related problems of manpower and the quality of education in the health professions. The bill proposes a five-year grants program to assist schools of medicine, dentistry, and osteopathy to improve the quality of their educational programs. It also provides for a five-year program for the establishment of scholarship funds -- a reflection of the tremendous investment now required for pursuing a medical education.

The other bill I mentioned deals with another paradox that has developed in the wake of expanding research activities -- the so-called "information explosion". This, like the lack of facilities and manpower, is another impediment to the moving of medicine out of the laboratory, to the patient. We are faced with an abundance of scientific information which we are not equipped to handle. The present system of communicating medical information in greatly inadequate. As the Commission on Heart Disease, Cancer, and Stroke noted: "The present state of most medical libraries in the United States is lamentable, largely because libraries have not received their due share of the greatly increased attention and funding for research."

In summary, this bill -- in eight main provisions -- calls for assistance in rehabilitating existing and constructing new medical libraries, assisting research and training in the field of library science, and supporting non-profit biomedical publications. It is hoped this will start to bring some order out of the present chaos and prevent further publication from becoming, in the Commission's words " an exercise in futility."

You see, then, that the chief concern of these bills is the effective and speedy use and application of present knowledge and of the advances yet to come. These are efforts to round out our strategy in the war on disease. For too long we have been concentrating on only one or two fronts of this war. To be sure, we have made great victories, yet on other fronts -- those in which human lives are at stake -- we have been tragically negligent.

Therefore, with the approval of Congress, part of the future Government role in medicine will be concerned with bringing to the people the benefits of the research knowledge which their tax dollars have in large measure helped to bring about.

It is with this in mind that I call upon you to join with me in support of these bills. As physicians, you above all men know of the suffering wrought by the three diseases we have singled out for our attack. I urge you as physicians to write your Congressmen and actively support these measures which seek to provide the means to eliminate these great killers. With your support we can be assured only of overwhelming success.

I am at a loss to understand how the American Medical Association can oppose these simple and necessary steps to benefit the health of all our citizens. If press reports are correct and the AMA is indeed taking this stand, then I think it imperative to make it clear to the people that the AMA stands alone. The American Hospital Association, the American Cancer Society, the American Heart Association, and the American Association of Medical Colleges have all passed resolutions endorsing the findings of the Presidential Commission.

I can only assume that -- like some other interested segments of the populace -- the AMA has forgotten the original objectives of the Federal role in medical research, and I can only suggest that perhaps it is past time for a general re-examination of these objectives.

It was never proposed to build a kind of medical research ivory tower with the people's money. As one who has had the good fortune to participate in the plans and policies governing the Federal support of medical research in this country, I can assure that the aims of Congress have never been unclear. We have intended to mount a research effort second to none -- that war may be waged upon disease. Now that we have produced a nationwide capability for this war, we cannot fail to declare all-out war. To stop at this point and express misgivings is to cost the entire population untold suffering. To stop at this point is to fail to take the next logical step and to make human life a little safer, a little happier for all Americans and for all mankind.

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