

March 15, 1959

Hon. Hubert H. Humphrey
Senate Office Building
Washington 25, D.C.

Dear Senator Humphrey:

Thank you for your letter of the 6th, soliciting my opinions on our health research program, and in particular on S.J.R. 41 relating to International Medical Research. I am happy to have the opportunity to express my views, which are of course available for publication as you see fit.

The National Institutes of Health and their programs in support of research in the health sciences are now universally recognized to play an indispensable role in our national welfare. The administration of the NIH has always been responsive (to a remarkable degree!) to the needs of our scientists, and I would be happy to recommend your confident reliance on the NIH in speaking for these needs in detail. This is in part ~~because~~ a reflection of the important role played by many academic research workers throughout the country in implementing the review procedures and policy development of the NIH through their participation in study sections and advisory councils.

From my experience on such panels, I think it would be fair to conclude that existing levels of support essentially suffice to support most of the projects of obvious merit that are submitted to the NIH by scientists throughout the country. However, I do not believe that this should encourage complacency as to the adequacy of financial support of research in the medical sciences. Funds are still not sufficient so as to be readily available for several categories: a) to encourage planning for research that owing to needs for elaborate instrumentation and other material facilities may require budgets that are out of line with existing norms -- I must confess that my own planning is still made in a context of relative penury, and this is not necessarily advantageous to the most productive development of scientific ideas, b) for projects whose merit may be dubious in the light of present knowledge, but some small fraction of which might still make so valuable a return as to compensate for the risks, c) for projects and integrated programs which involve the bringing together of groups of scientists with mutually complementary skills, d) for the many new laboratory buildings that must be constructed to house our expanding research program, e) for the training of our future scientists, and also f) for adequate support of worthy programs of research in other countries.

To speak first to f), it is of course obvious that the American people will benefit equally from health advances made in other countries as those in the U.S. Indirectly we are bound to share in the economic prosperity of other nations (with many of which we now wisely share some of our wealth); more directly, new knowledge and new methods of medical practice are immediately applicable to our personal needs, regardless of the nation in which they originate. Anything we can do to ~~improve~~ encourage medical research anywhere in the world is an investment in our own security, health and happiness.

These inferences are quite well brought out in the subcommittee print, and I perhaps need not enlarge further on them. However, perhaps there are some who do not fully appreciate the extent and importance of international communication in science, which is simply part of my daily experience — in reading scientific papers which bolster and help define my own laboratory work, in my own visits to other laboratories and personal correspondence with scientists abroad, and in visits of foreign students and scientists to my own laboratory. For example, in my own laboratory at this moment, I have students and colleagues from several countries (besides the U.S.) who are making important contributions to our research program — Australia, Japan, India, Great Britain. Perhaps I could not do better in underlining this point than to refer to two enclosures: (1) a copy of my address of Thanks at the Nobel ceremonies in Stockholm last December, and 2) a partial list of my past colleagues, which does, as you will see, have a cosmopolitan flavor. As I did try to say, the Nobel Prize itself has no meaning whatever except to exemplify the worldwide scope of achievement in science and humanity.

As you can already judge from these remarks, international cooperation in medical research has already gone a long way. But it is certainly true that much more can be done both to help support research in other countries, and to foster better communication between scientists of diverse nationality.

As to details of procedure and organization I would prefer to base more deeply considered remarks on the proposals of the NIH, which will be in closer touch with administrative questions. The organization of a new Institute for International Medical Research would have the virtue of dramatizing America's contributions in this sphere, and perhaps then ~~bringing to the attention of~~ building more constructive support in the public mind both in the U.S. and throughout the world. However, I have been speculating in my own mind that our breadth of vision might be demonstrated even more convincingly if we simply did not distinguish promising research applications on the basis of nationality. The NIH already has some statutory authority to make grants to workers abroad, though it has (I believe) exercised this with some diffidence perhaps owing to the lack of an explicit legislative mandate. More funds will, of course, be needed if foreign applications are to be encouraged. Existing procedures should be able to accommodate a substantial increase in the level of support going to laboratories elsewhere. If these should, however, reach a scale even approximating that now available in the U.S. careful thought will have to be given to the development of mechanisms to allow foreign participation in the review of applications. If they do reach such a scale, then I might urge considering the use of WHO as an extra-national agency for review and disbursement, a scheme that might make some flexible use of funds-matching for the encouragement of indigenous support (a scheme that should by no means be obligatory for US-administered funds). However, I would think offhand that foreign support to a level of \$50,000,000 could be accommodated without deflecting from present techniques.

A new Institute for International Medical Research could play an important role in the development of policy and as a clearing house for new thoughts. While it should not play a direct role in research project review (which would lead to specific distinctions between domestic and foreign science) it could still help to bring the program to the attention of the world's scientists. It could also

take responsibility for the special problems of international communication and personal exchange. Rather than develop a unique program of grants and fellowships I would suggest strengthening our existing one, and making it directly available to foreign candidates. The IMR institute might then be called upon to support the additional requirements for international exchange.

For example, my own research and graduate training activities are given substantial support by the NIH and NSF. I have, as far as possible, accepted candidates for assistantships and studentships who might be paid stipends from these grants on the basis of individual merit, and this has resulted in the recruitment of a substantial number of foreign researchers. This has always involved ~~some difficulty~~ some difficulty because of ~~high~~ costs of travel to the US. The Fulbright program has been a tremendous benefit, but ~~it has not always been possible~~ it has not always been possible for these workers to ~~make~~ make use of it— as a separate program there are problems of timing and availability of awards. An IMR Institute might perform a splendid service if it could promptly review and respond to applications for supplementary travel support for nominees on NIH-supported research programs in the U.S.

To take another explicit example from my experience as a Fulbright visitor to Australia. Many of my colleagues there, especially in biochemistry, expressed some sense of isolation and discouragement because current American scientific journals took several weeks or months (sic) to reach there by sea mails. An offer to furnish air transport (perhaps in cooperation with the Australian government) for such materials to the 6 or 10 principal centers might do a great deal to encourage the sense of participation of an able group of dedicated workers in the immediate currents of scientific progress elsewhere.

I have no doubt that the IMR Institute could multiply these possibilities many fold; it should be given ample authority to manage a flexible program.

I do not believe there are serious obstacles to co-operation among scientists, apart from the obvious problems related to language differences and travel costs. There is nothing national about knowledge, no matter where its discovery, and scientists of all countries are inclined to respect one another, and to take advantage of their reciprocated riches. The advent of jet aircraft travel will make the oceans a slim barrier indeed, but present policies and funds of the NIH do not make it possible to make full use of these instruments.

To answer one of your last questions, I have already summarized some of the general needs for further development. I would put special emphasis on the shortage of funds for construction of health research facilities, and have been particularly disappointed at the skimpy provision for this, in relation to expressed and admitted needs, in this year's executive budget. I would also raise the question, once again, of the wisdom of excluding ~~many~~ education facilities, not only because of the inherent needs for them, but also because their exclusion has worked considerable mischief in planning for research facilities that might have related training (including research training!) functions.

One small, and I hope easily remediable detail that has hindered the most productive association of government (e.g. NIH or Army Medical Research Center) scientists with academic workers has been the severe interpretation of Civil Service regulations concerning travel of government ~~personnel~~ personnel, and the use, e.g., of grant funds to pay travel costs of government scientists for research conferences, consultations and so forth at university laboratories. One can visualize the potential abuses that may have justified such regulations, but they are hardly relevant in this context.

Yours cordially,

Joshua Lederberg
Professor of Genetics