

# NATIONAL ACADEMY OF SCIENCES

2101 CONSTITUTION AVENUE WASHINGTON, D.C. 20418

June 16, 1986

OFFICE OF THE PRESIDENT

Dr. James B. Wyngaarden  
Director  
National Institutes of Health  
Building 1, Room 124  
Bethesda, MD 20205

Dear Jim:

The mapping of the human genome is an idea that has captured the attention and excited the imagination of a large number of scientists. As we know, in the last decade about 1,000 genes of known function have been mapped and the locations identified for another 1,000 genes of unknown function. Yet, these represent only 1% of the human genome. It is possible to complete the mapping with an intensive effort and many scientists believe such an effort should be undertaken. The potential benefits of a successful effort clearly are enormous for a better understanding of many aspects of genetics and for application to the study of disease. Opportunities for international cooperation come to mind. At the same time, such an effort cannot be entered into without careful deliberation. Vast resources would need to be dedicated to the task's fulfillment, and as you know there are voices in favor of alternate priorities for use of these research funds. Further, methods for both mapping and sequencing genes are evolving, but the optimal procedures have yet to be worked out and the organizational structure and identification of the research performers are yet to be fixed upon.

I am aware of the deep interest you have in this subject and that shortly NIH will be meeting with representatives of the Howard Hughes Medical Institute to explore your common interest. Other federal agencies have expressed interest in pursuing the idea as well.

I write to express our interest in contributing to the further elucidation of this complex project. More specifically, we offer our services as a convener of appropriate groups from the public and private sectors to discuss the feasibility of the idea and its relative priority among competing needs and to examine such issues as the information-handling problems, the need for and availability of instrumentation and techniques for mapping, and the design of an administrative structure to manage the activity. We also offer our links to the international professional community to effect cooperation with our colleagues in other countries.

ES/NIH Distr. 6/23/86 - Kirschstein - Director's Sig. (due 7/8)  
Info cys: Wyngaarden, Malone, J.E.Rall, Moskowitz, Beaven, DeVita

The excitement over the idea of mapping the human genome reminds me of other vast challenges to the imagination of scientists, for example, putting man on the moon or constructing giant telescopes. History shows that if properly organized, these ideas can be translated from dream to reality. Mapping the human genome is an idea of the same magnitude. Exploring whether and how to attempt it is a question deserving everyone's closest attention.

Sincerely,

A handwritten signature in cursive script, appearing to read "Frank Press".

Frank Press  
President

cc: Dr. Donald S. Fredrickson