Dr. Albert B. Sabin  
Professor of Research in Pediatrics  
Children's Hospital Research Foundation  
Cincinnati, Ohio  

Dear Dr. Sabin:

We are most appreciative of your participation in our Inter-Study Section Meeting on "The Role of Viruses in Relation to Human Malignancies," held September 16 at the National Institutes of Health. Brainstorming sessions of this type have been found effective in advising the Institutes with respect to those research areas in which a more active program should be stimulated. Many of those who take part feel that they are personally benefited. We hope you concur.

In order to realize further benefit from the participants so oriented, I wish now to ask if you would undertake to send us additional thoughts on the subject. We wish to have suggestions of specific research problems or approaches which should be tried, and if possible, the names of men or institutions qualified to enter in or increase their effort in the field. In asking for your advice in such specific terms, we point out that you are more qualified to give us this information in a field familiar to you than we are to attempt it for all. As in any other advisory action with which you may assist us, no personal commitment on your part is implied or made for you. Please feel free to send in whatever suggestions you wish. A green work sheet is enclosed for your convenience.

May we also ask you to indicate whether or not a longer (two or three day) meeting with defined program areas should eventually be considered and what disciplines should be added or emphasized to make it a successful cross section of those disciplines which must eventually come to bear on the tumor-virus problem?
As a direct result of our meeting, the Virology and Rickettsiology Study Section two days later drew up the enclosed statement on certain program needs in "tumor-viruses." Your comments on this would be appreciated.

Thanks again for the active part you took in the discussion, and for such homework as you can spare time to do.

Sincerely yours,

Harvey I. Scudder, Ph.D.
Executive Secretary
Virology and Rickettsiology Study Section
Division of Research Grants

Encl.
THE ROLE OF VIRUSES IN RELATION TO MALIGNANCY

Statement by the

VIROLOGY AND RICKETTSIOLOGY STUDY SECTION
Adopted September 18, 1958

The Virology and Rickettsiology Study Section strongly believes that there is both a need and an opportunity for expansion of research in the field of viruses in relation to malignancy.

In view of continued experimentation with virus-induced tumors and especially because of recent discoveries, it is now fully evident that there are excellent opportunities for intensive investigations of virus tumors and tumor-viruses, not only in the areas of etiology but also in areas concerned with the problems of control by means of treatment and of possible prevention by vaccines.

In order to facilitate cooperative effort in this field, some means should be provided for establishment of sources of various materials essential to the work, such as:

1. Special human material of malignant origin for tissue culture and other studies
2. Well-defined animal tumor-viruses and specific antisera
3. Specific tissue culture cell lines
4. Specific breeds of experimental animals

The National Advisory Cancer Council in its statement of June 16, 1958 (see attachment) endorses the concept of long-term grant support. The Study Section is in full accord with this statement, and would suggest that grants be approved up to a period of possibly ten years, with emphasis on the investigator rather than on the actual project under review. Exploration of the possible role of viruses in malignancy may include long periods in which positive progress may not be apparent, but this fact alone should not deter the reviewing bodies from continuing their support of the investigator. Continuous assistance should also be given to fundamental work in the field of virus research with particular emphasis on cell-virus interaction. The Study Section also recommends that if necessary, the National Cancer Institute provide assistance in such general areas of fundamental research as are pertinent to the study of viruses in relation to malignancy.

Harvey I. Scudder
Executive Secretary
Virology and Rickettsiology Study Section

John H. Dingle
Chairman
Virology and Rickettsiology Study Section

Attachment
POLICIES AND PROCEDURES OF PUBLIC HEALTH SERVICE
SUPPORT OF RESEARCH, DEVELOPMENT, AND TRAINING

The system for administration and award of grants which has been carefully built up in the last ten years within the U. S. Public Health Service is largely responsible for the confidence of the Congress, of the public, and of scientists and scientific institutions in the program and for the increasing appropriations. The Committee is of the opinion that any changes made in response to changing conditions should preserve the basic structure. This basic structure consists of three phases:

1. Evaluation and recommendation of the scientific merits of the application by a Study Section—a jury of peers drawn from the able and knowledgeable scientists of the country.

2. Evaluation and recommendation of the relative importance of the application to the total problem of health and disease by a Council—a jury of peers drawn from the able and knowledgeable scientists and lay men and women of the country.

3. Action on the application by a government official—the Surgeon General—on the basis of the recommendations.

The evaluation by both the Study Section and by the Council consists of review of the data submitted by the applicant, written opinions of experts solicited by the group, and at times a visit to the laboratory of the applicant.

Within this structure, grants have been awarded in large part on the basis of a request to carry out a specific investigation. The application sets forth why the study is believed to be worth while, how it is proposed to study the problem, and how the funds will be spent. Although the qualifications of the investigator are evaluated and have been theoretically the major element influencing the action, considerable or even dominant emphasis is often given to the problem.

The Committee is of the opinion that in the future there should be greater confidence in men and less emphasis on the specific detailed single research studies to be undertaken.

Within this structure, there has been established a system of "moral commitments" for financing in future years, up to five years. This has been most commendable and gives to the programs and to the individual investigators a sense of continuity and security. The Committee is of the opinion that the system of "moral commitments" should be strengthened and extended with particular reference to the time of renewals.

Also, within this structure there has evolved a program which encompasses almost every type of support to research.
A. Support of a single, discrete, and limited problem by a single investigator.

B. Support of all or several of the research problems of a single investigator.

C. Support of work on a discrete and limited problem by two or more senior investigators in the same or different institutions, whose diverse training permits each to complement the other.

D. Single grant support for the activities of a group of mature investigators in the same department in which these activities center about a common research problem.

E. Single grant support for the diverse research activities of a group of investigators in the same department or section whose interests are not centered about a common research problem except in a very broad sense, such as cancer or heart disease.

F. Single grant support for a school or university to initiate or expand a research program in a field either within a department or in an interdepartmental way.

G. Small grant support for pilot studies in exploration of new leads.

H. Support of a training program.

I. Subsidy for symposia, conferences, etc., and for publications.

The National Cancer Institute has or is now supporting "projects" in all categories. The Committee is of the opinion that this program should be continued, that grants should be tailored to fit the needs of investigators, that grants in category E should be encouraged, and that there should be increasing emphasis on categories B, C, and D in contrast with A, that is: on broad projects of one or more men, as well as on limited projects of one man.

Thus, the Committee recommends to the Council certain principles in the future program of grant support:

1. Preservation of the approach through Study Section and Council evaluation and recommendation.

2. Greater confidence in men and less emphasis on detailed, limited, and single investigations.

3. Strengthening and extension of the system of "moral commitments."

4. Greater emphasis on broad projects of one or more investigators both within a discipline and interdisciplinary, and both within a single institution and between institutions.