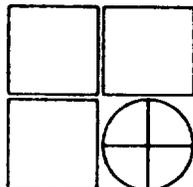


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August 14, 1979

Mr. Benno C. Schmidt
Chairman, President's Cancer Panel
J.H. Whitney and Company
630 Fifth Avenue, Room 3200
New York, New York 10020

Dear Mr. Schmidt:

My communication regarding funding of cancer research sent you a few years ago received your very thoughtful attention, and so I am taking the liberty of writing to you again. I hope that my present suggestion will be worthy of your consideration or that you will suggest the proper route for it to get a hearing.

Researchers are increasingly occupied by the peripheral activities to keep their laboratories running, such as governmental "disincentives" - requirements for hiring, safety, accounting, etc. These matters have been so frequently commented on that you are well aware of them. One of the most time consuming and distracting problems arises from the uncertainty of obtaining research funds from one Grant period to the next. I quote Dr. Phillip Hander's testimony of 6 March 1979.

"The total national science faculty competing for research support nearly doubled during that decade (1967-76). At the same time, indirect cost rates kept rising and the intrinsic costs of doing research increased annually, because of the increasing sophistication of research itself, at a rate which is approximated at about four percent per year. Hence, the sense of a considerable shortfall. The federal agencies, trying to stretch their resources, responded by shortening the period of the average grant and reducing that fraction of their resources allocated to acquisition of instruments, a situation which has been described as "ten-year ideas supported by two-year grants based on one-year appropriations."

"At the same time, applicants, aware of the ever-increasing competition and fearful lest they be unsuccessful in the competition, attempt to enhance their chances of success by submitting the most detailed applications possible. When I was an active investigator (supported in considerable part by funds from NIH), a week more than sufficed for the prepared of a research grant application. Today, at least one month per year appears to be par. In sum, this is a massive waste of scientifically unproductive effort, resulting only in placing a burden on the recipient agencies to find qualified reviewers to read it all, thereby tying up yet more scientists in peer review -- which has become an endurance contest as well as an analytical procedure."

I have a simple proposal that would, I believe, considerably reduce the number of Grant applications and thereby would reduce the enormous tasks of preparing and reviewing these proposals.

A one year transition stipend could be given to an investigator whose renewal application (of an R01 Grant) is approved with a reasonable priority, but cannot be funded. The transition stipend would be sufficient to carry these investigators minimally for a year, during which time they could prepare further applications. It would give them assurance that they would not have to close down their laboratories which is their fear, if funds are not forthcoming under the present system.

The only practical way to assure that one will not be unfunded for a period of at least a year following the termination of current support, at present, is to write numerous proposals and submit each of them to several agencies. This procedure is not only extremely wasteful of the time and effort of all concerned, but the atmosphere is extremely anxiety-producing and counterproductive. It is intensified by the factors mentioned by Dr. Handler and also because an ever-increasing fraction of the constant dollars allocated to research go to overhead instead of investigators as direct costs to Investigators for direct costs.

Finally, I refer to the unpredictability of the review process for even the best proposals. There was 50% variance between reviewers' ratings of biochemistry proposals, according to the enclosed article in Nature, 279, 575 (1979). One gets the feeling that one is almost playing russian roulette in the present system, since "peers" disagree so drastically as to what should be funded.

In summary, uncertainties of the Grant process make us fear becoming unfunded, which leads to multiplicity of applications, creates multitudes of reviews that further consume scientists' time and attention, requires so many study sections that some members are not of highest quality, and also strains administrative resources in people and dollars.

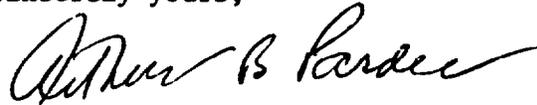
I am not able to calculate the costs of Transition Stipends. But, I doubt if they would be expensive, and money might even be saved. For years the American Cancer Society has granted a Terminal Year of support, at the final year's amount, when a Grant was not renewed. Transition Stipends could be adjusted according to available resources and number of qualified applicants.

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For instance, in a given year all unfunded renewal applicants with priority scores of better than 300 (or 330) could be given a one year stipend equal to one half of their previous year's support. Overall savings would come from acceptance of Transition Stipends in place of the full amounts that could otherwise be applied for and obtained from multiple applications, and from reduced costs of administration. But the big saving would come from the more efficient efforts of scientists.

Hoping that this proposal has some appeal, I am,

Sincerely yours,



Arthur B. Pardee
Professor of Pharmacology
Harvard University
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Sidney Farber Cancer Institute

ABP/lw
Enclosure