# IMPERIAL CANCER RESEARCH FUND LABORATORIES

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Dr. Harold E. Varmus,
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18th October 1977.

Dear Harold,

I am sorry that there has been a delay in answering your letter but I have been getting advice from various people here. We were all interested to read your grant proposal. From what you say, this is mainly your submission to raise funds for a fellowship, and that your plans are still fairly elastic.

Taking the various proposals in order:

1. I am afraid that we would not be happy about work on the genetic organisation of hepatitis B virus. First, there are questions about the safety of work with this virus even using viral DNA. More important, however, work on this virus would not be particularly in our interest. No one else is working with it here but there is a very active group at the London School of Hygiene and Tropical Medicine, also in central London. We think, that were you to work with this agent, it would be better to do it with them.

2. The characterization of integration sites of RNA tumour virus DNA does present troubles with our safety regulations and in particular with the Genetic Manipulation Advisory Group (GMAG). Since you would be cloning (relatively) unpurified animal cell DNA, we are sure that this would come at least into Category 3. If an integrated sarc genome was present in the cells, it would be raised pretty certainly to Category 4, and Category 4 will not be possible here under any account. The absence of a sarc gene would obviously make it more difficult, though John Wyke thinks it might be done with RAV(0). But even if it were possible, and eventually was classed by GMAG as Category 3, it would have to be assessed locally for priority in our limited biohazard laboratory, against other competitors. No one here (including Mike) is particularly keen to act as the sponsor for this particular project, partly for that reason.

3. The generation of new deletion mutants of avian RNA tumour viruses presents no difficulties. Indeed, it would be a very welcome research programme since it would fit in to the interests both of John Wyke and Mike Fried. What we suggest, therefore, is that you plan initially to concentrate on this problem. John Wyke says that he could give you tissue culture facilities and a base, while the restriction enzyme analysis could be done in collaboration with Mike Fried.

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It is possible that you may find this is too close to the RNA virus field and that you would like to be based entirely in the DNA group of laboratories. If so, it would really be best to consult with Mike Fried or one of the others and settle on a problem which is much more directly related to the on- going work in those laboratories.

On the matter of housing, I will let me office know about your needs and they will keep an eye out. But I am afraid we do not have a housing agency mechanism here. Most of our American visitors get settled fairly quickly after they arrive. I do wonder, however, whether you might not put a notice in "Nature" about the possibility of exchange.

We are all looking forward to seeing you. All the best.

Yours sincerely,

Richard.

P.S.

On the deletion mutants, you should consult Robin Weiss as well as John Wyke because Eric Humphries, who works with Robin but will have left when you come, has been doing something on these lines.