THE BROOKLYN INSTITUTE OF ARTS AND SCIENCES
BROOKLYN BOTANIC GARDEN
1000 WASHINGTON AVENUE
BROOKLYN 25, NEW YORK
TELEPHONE: MAIN 2-4433

Dec. 14, 1957.

Dear Lederberg,

We have become interested in mutant microbes which are deficient in their aerobic metabolism, and thus may show some resemblance to cancer cells. Cultures such as Ephrussi's petite colony yeast, deficient in Cytochrome oxidase, would be of interest.

It seems to us worthwhile to make new mutants with defective metabolism, using E. coli and S. aureus. These might be useful in preliminary screening for anti-tumor substances. The final screening would then be done with selected materials injected into embryonated hen eggs bearing four different types of human tumors.

Would you have a graduate student or PL 10 who would be interested in making such mutants? The work could be supported financially by arrangement for a fellowship and expenses. Or, we could take a good person into our program here in New York, beginning anytime soon. If such suggestions seem to be impracticable in your laboratory at this time, can you suggest anyone who

would be interested in doing this kind of mutant work in his own laboratory with financial aid or anyone available to work with us here?

As regards methods, we are thinking of chemical and radiation sources of mutagenic agents, and selective dye techniques for finding metabolic mutants. Have you any special suggestions or references on techniques of isolating respiratory mutants? Any help will be greatly appreciated.

Let us hear from you soon, and with best wishes,

Sincerely,

Paul R. Burkholder.

P.S. Perhaps you may have on hand yeast or E. coli mutants that you think would be of interest in our work. If so, please send them along soon.

B.