

1212 Queens Road
Berkeley, California 94708
February 2, 1969

Dr. Joshua Lederberg
The Medical School
Stanford University
Palo Alto, Calif.

Dear Dr. Lederberg:

I am writing to express my appreciation for your January 14th newspaper column dealing with pesticides and their but poorly understood effects on microosomal enzyme systems. I am in complete agreement with your assertion that there is need for additional research on the inductive effects of pesticides. I write as an entomologist-geneticist-toxicologist with considerable expertise in this area--and as one who needs a place to continue promising research on the nature of microosomal induction.

Through utilization of genetic approaches with house flies, I have prepared populations which are proving very useful in this research. Thus, I have "induced" populations (those with unusually high oxidative activity), populations which are easily inducible, and also populations which are resistant to inducing insecticides. Work soon to be published have shown a surprising abnormality in the resistant populations. They possess about two times the usual level of glucose-6-phosphate dehydrogenase activity and utilize the pentose cycle to an unusually high degree in metabolizing injected glucose. The genetic evidence is quite clear--resistance to inducers and high G-6-PD levels are inseparable.

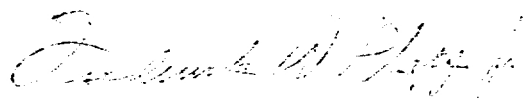
It is my hope that further work with these populations might shed much light on the mechanisms controlling detoxifying enzymes in animals and possibly, on the nature of responses to stress. Further, I suggest that house fly populations with their easy maintenance and high level of genetic variability should prove ideal for this work.

My background includes a PhD. from Wisconsin in 1958 under Dr. Casida (not Lester, but John), 10 years research in house fly genetics and pesticide metabolism with the USDA, and presently, temporary employment in the Entomology Dept. at U. C. Berkeley as a researcher.

If there might be possibilities that research along these lines could be pursued at Stanford, I would be most pleased to come to Palo Alto to discuss matters.

Thank you for your consideration.

Sincerely yours,


Frederick W. Plapp, Jr.

FEB 5 1969

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Have you tried All County at Berkeley, Calif.

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