CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA

DIVISION OF BIOLOGY
KERCKHOFF LABORATORIES OF BIOLOGY

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Dr. Joshua Lederberg
Department of Genetics
College of Agriculture
University of Wisconsin
Madison 6, Wisconsin

Dear Dr. Lederberg:

I am very glad to learn that you may do some experiments soon relating to finding natural auto-antibodies in bacteria. While I haven't done much about this during the last couple of years, this doesn't mean that I've become discouraged about the attempts. In fact the indications seem stronger than ever that substances that can be so characterized will be obtained from bacteria.

I take it you were referring to such statements as I have made in Proc. Nat. Acad. Sci. (1940, v. 26 p. 255) and Physiol. Revs. (1948 v. 28, p. 205), etc., in analogizing phage with auto-antibody. The more recent work on lysogenicity, transduction, etc., certainly seems to point more and more in the direction that virus should be regarded as being originally a gene-like component of the cell rather than a parasite. Delbrück now seems to think that the distinction between independent organism in carrier state and original cell constituent is meaningless, but I believe that the outlook makes a big difference in the types of experiments that one is likely to perform.

The review to which Dr. Ray referred consists of a chapter in the book, "An Analysis of Development" edited by Willier, which has been "in press" for a couple of years and may appear within another couple of years. In the meantime I am sending reprints that you requested of some of the articles dealing with this subject.

With best wishes, I am

Sincerely yours,

Albert Tyler

Albert Tyler
Professor of Embryology

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