



DEPARTMENT OF  
HEALTH, EDUCATION, AND WELFARE  
~~FEDERAL SECURITY AGENCY~~  
PUBLIC HEALTH SERVICE

IN REPLYING, ADDRESS THE

May 6, 1953

Communicable Disease Center  
Enteric Bacteriology Laboratories  
P. O. Box 183  
Chamblee, Georgia

Dr. J. Lederberg  
Department of Genetics  
The University of Wisconsin  
Madison 6, Wisconsin

Dear Dr. Lederberg:

Enclosed is the report on the cultures mentioned in your letters of April 11 and 13. The following comments seem pertinent:

SW 1021 (1549-53) -- We have been unable to recognize single factor 7 in phase 2 of this organism. Work is continuing.

SW 1023 (1551-53) -- Apparently, a-1,5. We have gone back to your original culture three times and obtained the same results. Is there a possibility that the wrong culture was sent? *would you like this tube returned for checking?*

SW 999-B (1536-53) -- Also, a-1,5. SW 999 was a monophasic  $\Sigma_6$ . I believe this has been reported to you.  
*SW 999*

SW 988 (1533-53) -- Apparently, a 1,10 phase but since no single factor 10 serum was at hand I am not sure about this. We will prepare single factor 10 serum for further work with this organism. When cultivated in unabsorbed 1,10 serum a 1,2 phase was recovered.

SW 986 (1530-53) -- and SW 986-B (1531-53) -- These are diphasic forms which spread easily in single factor  $\bar{n}$  serum. Little spreading was observed in e,n,x serum. In 986 no cross agglutination of phase was noted. In 986-B the e,n,x phase was agglutinated only to 200 in a very strong  $\bar{i}$  serum. We will look further into the characteristics of the e,n,x phase but I doubt whether such a minimal reaction is worth worrying about. One sees such reactions often with naturally occurring forms.

SW 1026 (1529-53) -- Further work is being done with this form. It has been noted that when the  $\bar{i}$  phase was reverted to  $\bar{b}$  that most of the V factor was lost from the culture.

SW 1016 (1544-53) -- In our hands the phases of this form behaved just as those of SW 674. As I told you, phase 2 was agglutinated by S. enteritidis serum as well as by absorbed S. dublin serum. Further work being done.

*In 150 colonies of SW 674 reversion rate 2-3% will do more.*

Dr. Lederberg

May 6, 1953

SW 1003 (1537-53) -- There is something queer about this organism. Factor V is present in the somatic complex. It should not be if this organism is a transformed S. abortus equi. It has just occurred to me that we should look at the biochemical reactions of this culture. Did the typhi murium strain possess any peculiar biochemical reactions such as failure to grow on citrate?

In regard to the preparation of a table giving absorption results, I believe it is unnecessary to tabulate this material. Would you be agreeable to me simply making an appropriate statement regarding the work and deleting the reference to the table?

With kind regards, I am

For the Officer-in-Charge, Bacteriology Section

Sincerely yours,

*Phil*

PRE:mg

Philip R. Edwards, Ph. D.  
Bacteriologist-in-Charge  
Enteric Bacteriology Unit

Encl.

*Joshua - I find that there invariably something I forgot to tell you but this is all I can think of for the moment.*