## November 28, 1956

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

## Dear Lederberg:

I am very happy to find that the detailed structure of the pneumococcal polysaccharides is now of interest to geneticists as well as organic chemists. Our recent studies on cross reactions in antipneumococcal and other sera have led several groups of sugar chemists (including ourselves) to take up these fascinating polysaccharides once more and your justified complaint about the loneliness of the Type III substance is being rectified. You will find a partial solution of the Type II problem in J. Chem. Soc., 1955, 1537. A full description of the Type VIII substance, with several surprises, should be out any minute in the JACS, by J. K. N. Jones and coworker.

I see no reason to doubt Zamenhof's structure for the H. influenzae b polysaccharide. The pneumococcus VI and XVIII substances also contain P and Dr. Rebers and I are working on their structure now.

Thank you very much for the reprints. I greatly admire the way you have all sorts of complicated factors under strict control. Under separate cover I am sending you a few reprints on the cross reactions.

With cordial greetings,

Sincerely,

Michael Heidelberger

MH: DP