February 7, 1958

Professor C. H. Stuart-Harris  
University Department of Medicine  
Royal Hospital, West Street, Sheffield 1  
Yorkshire, England

Dear Stuart-Harris:

Thank you for your letter of 28 January with the news of the study that you are expecting to carry out with the attenuated type 3 poliovirus. Regarding the dose of 50,000 TCD₅₀ that you expect to feed, I would say that our own tests were carried out with 0.1 ml of the 1:10 dilution of the culture fluid which provided a dose of somewhat more than 100,000 PFU. I fail to understand why you propose to feed the virus in gelatin capsules instead of simply in a teaspoonful of milk or syrup or a teaspoonful of granulated sugar to which the 0.1 ml of diluted culture fluid is added.

I hope you have better luck with the Salk vaccine that you give than we have had with the commercially available material currently available in the U. S. A. Specifically I had started on an experiment in which I was to feed virus to children who have had 3 properly spaced doses of Salk vaccine with the idea that I would thus be able to obtain individuals with maximum antibody response. However, when the time came to test these children in November, 1957, 5 1/2 months after the third dose, it was found that most of the children in the type 1 group had no demonstrable antibody (and these were not triple negatives to begin with) and that a very large number in the type 3 group either had no antibody or very low titers. Accordingly, we were forced to give them a fourth dose of a specially selected vaccine and we now expect to feed them at the end of March. The reason I allow a period of at least 3 months between the last dose of killed virus vaccine and the feeding of attenuated virus is to permit a proper evaluation of the antibody response. In a paper that I presented in New York last January I pointed out that there is a period after antibody formation is stimulated by killed virus vaccine during which multiplication of virus in the intestinal tract may produce
little or no booster effect.

With best wishes and kindest personal regards.

Sincerely yours,

Albert B. Sabin, M. D.

P.S. Enclosed herewith are the results on virus multiplication and antibody formation in 5 triple negative children who were fed the 3 types of attenuated poliovirus sequentially as indicated in the table.