January 4, 1951

Dr. Jordi Casals
The Rockefeller Institute for Medical Research
66th Street and York Avenue
New York 21, N. Y.

Dear Jordi:

I am very grateful to you for sending me the interesting complement-fixation data on the human polio sera which I sent you. As you are undoubtedly aware from the data that we have published on these patients, the viruses which were recovered from all of these patients were of the non-Lansing variety. Furthermore, there was no development of Lansing antibody in this group among those who had none to begin with and no increase in titer in those who had some during the acute phase. It may be said, therefore, that the infection they suffered during the period represented by the sera sent you was not due to Lansing virus.

The data you published in the November issue of the Proc. Soc. showed no crossing between Lansing virus and Brunhilde virus. One would have to assume therefore - (a) that such crossing may appear in some human beings (because of the results in Fine, Oberlin and Risner, who had no neutralizing antibodies for Lansing virus), and (b) that the complement-fixing antibody may perhaps persist for a considerable time after infection with Lansing type virus (because of the results in Hopkins).

Another thought has been going through my mind which may or may not have a bearing on these results. As you know, mouse brain contains Forssman antigen, and I have wondered how completely it may be removed in various preparations of the very concentrated brain extract which I used. The reason I mention this is that various human sera contain Forssman antibodies in varying concentration which will fix complement with sheep red erythrocytes. It so happens that as part of another study I have tested all but one of the sera that I sent you for complement-fixing antibodies against sheep erythrocytes. You will be interested to learn that Hopkins' serum had the highest titer (1:32), that Risner had a titer of 1:16 and that Fine and Froman had titers of less than 1:8. The scattered positive fixation, varying in titer from 1:2 to 1:4, which you obtained with the WEE and Japanese B antigens made me wonder about the possible role of residual Forssman antigen. All I can tell you about patient Oberlin is that he is a 13-year old white boy living in Akron, Ohio. I suppose the only way you can check on the significance of the reaction of his serum with WEE antigen is by testing the serum for neutralizing antibodies. I have some additional serum on this patient which
you could have for this purpose. It might be of interest to determine the effect of preliminary absorption of human sera with sheep cells on their subsequent reaction with your concentrated mouse brain antigens.

I don't know whether or not you might be interested in a cooperative study with me on the development of complement-fixing antibodies in cynomolgus monkeys after infection with the Y-SK virus by the oral route. I am obtaining pre- and postinfection specimens on these monkeys which are being tested for neutralizing antibodies with the Lansing strain of virus. Thus far, a remarkably high percentage of these orally infected monkeys have developed neutralizing antibodies regardless of whether or not paralysis occurred. If you are interested, we could have a joint study, entitled, "The Development of Neutralizing and Complement-fixing Antibodies in Cynomolgus Monkeys Infected by Y-SK Virus by the Oral Route."

I shall be in New York at the Hotel Commodore on January 6, attending the meeting of the authors of Rivers' book. If this letter reaches you by Saturday morning and you wish to discuss this matter further, you will be able to reach me at the Hotel Commodore.

With all good wishes and kindest personal regards to you and PKO,

Sincerely yours,

Albert B. Sabin, M.D.