13 August 1951

Major Kenneth F. Burns, VC
Department of Virus and Rickettsial Diseases
406th Medical General Laboratory
APO 500, c/o Postmaster
San Francisco, California

Dear Major Burns:

Thank you very much for sending me your intramural report, entitled, "Comparative Clinical Evaluation of Japanese B Encephalitis Cases Among Indigenous and United Nations Personnel." I was very glad to have an opportunity to see the results contained in this report. However, I should like to stress that serological confirmation of the diagnosis still depends on the demonstration of a rise in titer during a particular time interval in relation to clinical manifestations rather than any particular level of complement-fixing antibody. The occurrence of certain titers of complement-fixing antibody may constitute presumptive evidence, particularly when a simultaneous comparison is made with an appropriate control group.

I have reexamined the data on the 25 cases which were forwarded by Colonel Hullinghorst in the light of your statement that the complement fixation titers referred to original serum titers. On that basis, I have found that only 7 of the 25 were serologically confirmed in the sense that a 4-fold increase in C-F titer was present and that included a change in titer from 0 to 1:14. In the category of "Possible, not definite", which I defined as a C-F titer of 1:14 or higher, there were 5 patients; 13 of the 25 were negative on both counts. Thus in the sample submitted, I find that only 28% were serologically positive, while in another 20% the diagnosis may be probable but not definite, and 52% were negative. I cannot quite see how you arrived at a conclusion that 80% of the cases diagnosed as Japanese B encephalitis, both among the Japanese and among Americans, could be confirmed serologically. It is certainly contrary to all of my personal experience, both among American and among Japanese. Thus, on Okinawa, 1945, only 11 of 38 clinically diagnosed cases could be confirmed. In 1946, there was a superabundance of Japanese cases diagnosed as encephalitis which could not be confirmed. I will grant you that during a severe epidemic the chances of a correct diagnosis are greater, but, even so, I should think that you would be doing well with 50% confirmation. During my experience on Okayama in 1946, it
was quite evident that cases of Elirí could very easily pass for encephalitis without a proper laboratory work-up.

I find the data presented in Table 1 on the clinically diagnosed cases in previously vaccinated individuals in Okayama most regrettable in two respects: a) that there are no data on acute and convalescent serum specimens, and b) that better provision has not been made for a work-up of fatal cases. Whoever is responsible for following up the study in Okayama is not doing what I would call a good job. It is quite obvious that at least two of the patients listed in that table [illegible] cannot be regarded as serologically proved or suspect cases, and as for the others, the absence of any data on acute specimens leaves one in a very inconclusive state.

With all good wishes and kindest personal regards,

Sincerely yours,

Albert B. Sabin, M. D.