Dr. W. Lloyd Aycock  
Department of Preventive Medicine  
Harvard University Medical School  
25 Shattuck Street  
Boston 15, Massachusetts  

Dear Dr. Aycock:

I was delighted to receive your letter of July 6, and I am looking forward to the reprints which you said were on the way. I always find your thinking on subjects of mutual interest most stimulating. I am not quite sure what Bill Hammon told you, but I suppose that he had reference to our work on the effect of certain 8-aminoquinoline compounds in experimental poliomyelitis. Briefly, the story is as follows:

1. The toxicological work on the 8-aminoquinoline compounds prepared for the Antimalaria Program established that some of the compounds have a special affinity for certain groups of nerve cells in rhesus monkeys. The nerve cells predominantly affected were those in the medulla and midbrain corresponding to those not infrequently attacked by the virus of poliomyelitis. The anterior horn cells of the spinal cord also showed histological but no clinical evidence of involvement, although to a very much lesser degree than those in the medulla and midbrain. The extent to which the nerve cells were affected varied with the chemical constitution and structural formula of the various compounds. Those producing the greatest effect led to complete necrosis of the nerve cells.

2. In preliminary investigations with these compounds on experimental poliomyelitis in monkeys and mice, it was observed that some of these compounds had an action which could be described as synergistic with the virus, since the incubation period was shortened and mortality due to more extensive neuronal necrosis increased.

3. However, one compound was found, which was an isomer of the worst member of the above group, which had an action in monkeys infected with poliomyelitis virus by the intracerebral route (the drug being given by stomach tube) which could be considered as antagonistic - the incubation period being prolonged and a certain proportion of the monkeys surviving without clinical or histological evidence of poliomyelitis.

4. In order to pursue this possible clue, I have teamed up with three of the crackajack members of the war-time malaria team - Dr. Elderfield and Dr. Drake as the organic chemists, and Dr. L. H. Schmidt as the pharmacologist, and with the aid of a grant which we have just received from the National Foundation are pursuing a program which is designed to determine whether or not a certain chemical constitution and structure can be correlated with antagonistic properties to the
propagation of poliomyelitis virus in the nervous system.

It is an intriguing approach, and I can assure you that the tests will be carried out on a sufficiently large number of monkeys and mice before any statements will be made one way or another.

From what I hear, you must have had a perfectly delightful time in Hawaii. I saw Dr. Hottinger and his wife, of Switzerland, after they returned from Hawaii, and he was so impressed with the conversations that he had with you that he could talk about nothing else. I am going off to Europe at the beginning of August for a period of about seven weeks where, among other things, I shall give a paper at the International Neurological Congress in Paris at their session on virus infections of the human nervous system.

I hope we may have an opportunity to get together before too long.

With all good wishes,

Sincerely yours,

Albert B. Sabin, M. D.