Major K. 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 manuscript dealing with Japanese B encephalitis in swine. I think it is an excellent piece of work, and you are to be congratulated on having picked up the possible significance of the abortions and stillbirths in swine and to have proved that the cause was infection with Japanese B encephalitis virus. To me the most important aspect of this work is the evidence that it provides of intrauterine congenital infection in swine and of the greater damage which the virus produces in the unborn swine as compared with their mothers. For this reason, I would like to suggest the addition of the word "congenital" to your present title, in order to call attention to the really important contribution of this paper. Again, although your present paper is very good as it is, I think that it would be still further improved by illustrations of the microscopic pathology in the brains of the unborn pigs you studied. Since as far as I can recall offhand, this is the first demonstration of congenital damage of the nervous system by any of the arthropod borne encephalitis viruses, it would also be highly desirable to add as many of the details as you may have available concerning the gross changes found in the various stillborn or newborn affected pigs. You are undoubtedly aware that the subject of congenital damage to the nervous system by various infectious agents has become a very important one in medicine in recent years. The most important, of course, deals with the effects of German measles virus in human beings, as well as by infection with toxoplasmosis. In toxoplasmosis in human beings, we also have a situation similar to that obtaining in the swine, namely, that the mother shows either no or very negligible evidence of infection, while the central nervous system of the fetus is very severely affected.

It is possible that you had not come across the following reference: Experimental infection of domestic animals with Japanese B encephalitis virus, Meiklejohn, G., Simpson, T. W., and Stacey, I. B., Proc. Soc. Exp. Biol. and Med., 1947, 65, 359-361. In this communication, the investigators report the experimental infection of three pigs, age approximately 4 months, with the production of fatal encephalitis in two of the three following the intravenous injection of virus. It is of interest that they were unable to recover the virus from the dead pigs. You may find it worthwhile quoting this reference and the data contained in it in your discussion.

I regret very much that the rumor you heard that I am to visit Tokyo this summer is unfounded. It so happens that a former associate of mine, Dr. Robert Ward, will be in Japan on a teaching mission and will undoubtedly pay a visit to the 406th
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Medical General Laboratory. As you know, also, Captain Edward L. Buescher, who spent the last year working with me on hemagglutination by Japanese B and other neurotropic viruses, is scheduled for assignment at the 406th Medical General Laboratory.

With all good wishes and kindest personal regards,

Sincerely yours,

Albert B. Sabin, M.D.

ABS: mjc
enc.