SUBJECT: Reassay of Japanese Encephalitis Vaccine

TO: Commanding Officer
  406 Medical General Laboratory
  APO 500, c/o Postmaster
  San Francisco, California

1. Assays have been completed on four sub-lots of Japanese encephalitis vaccine received from the 406th Medical General Laboratory, via courier, on 10 July 1949. These tested samples were from lots 301 to 303, which represents about 90 per cent of the Japanese encephalitis vaccine manufactured at the Army Medical Department Research and Graduate School during the spring of 1949 and shipped to Japan for field studies in the Okayama prefecture by the 406th Medical General Laboratory on Japanese volunteers.

2. The potency values of this vaccine, before shipment and after return to this laboratory, are given in the accompanying table.

   It should be noted that sub-lots having the same numbers are all from the same pool of vaccine. The letter following the number merely refers to that fraction of the pool which was lyophilized on a particular day. For instance, lots 301 A, B, C, etc. are all sub-lots of vaccine pool 301, and were from the same bottles of pooled material.

3. Each of the four sub-lots, listed in the table, was of acceptable potency when tested on 25 July 1949. This experience is in contrast with that of the past two seasons when vaccines were sent back to the School for reassy. In each of the preceding years, an appreciable proportion of the lots had shown considerable deterioration when retested following return from Japan. The encouraging observation on the uniform stability of all four lots has raised a question regarding the method of storage of these biologicals while in Japan -- were these vaccines stored in the usual manner at 5° C. or were they kept below freezing?
4. Additional samples of vaccine were received via the courier. However, some of these were single specimens (at least two are required for an assay) and could not be tested. The remainder were from lots 301 to 303 which were reassayed as indicated in paragraph 2.

5. If it is feasible to return samples of Japanese encephalitis vaccine manufactured by the National Drug Company during the spring of 1949, this laboratory will re assay such specimens to determine the stability. If this is done, it is requested that two or four bottles from each of four or six numbered lots of vaccine be sent.

FOR THE DIRECTOR:

JOSEPH E. SHADEL, M.D.
Scientific Director
Department of Virus and Rickettsial Diseases

CC: Prev. Med., SGO
Biologics Control, NIH
Dr. Paul
Dr. Sabin
National Drug Co.
Biologic Products
Veterinary Division
STABILITY OF LYOPHILIZED CHICK EMBRYO TYPE JAPANESE ENCEPHALITIS VACCINE MANUFACTURED AT THE ARMY MEDICAL DEPARTMENT RESEARCH AND GRADUATE SCHOOL IN 1949 AND RETURNED FROM JAPAN FOR REASSAY

<table>
<thead>
<tr>
<th>Lot Number</th>
<th>Sub-Lot Number</th>
<th>Date of Manufacture</th>
<th>Before Shipment</th>
<th>After Return</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Date Tested</td>
<td>M.I.D.*</td>
</tr>
<tr>
<td>301</td>
<td>A</td>
<td>1/20/49</td>
<td>2/15/49</td>
<td>0.015</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>1/20/49</td>
<td>2/15/49</td>
<td>0.025</td>
</tr>
<tr>
<td>302</td>
<td>A</td>
<td>2/3/49</td>
<td>3/25/49</td>
<td>0.017</td>
</tr>
<tr>
<td></td>
<td>E</td>
<td>2/3/49</td>
<td>not tested</td>
<td></td>
</tr>
<tr>
<td>303</td>
<td>A</td>
<td>2/11/49</td>
<td>3/28/49</td>
<td>0.020</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>2/11/49</td>
<td>not tested</td>
<td></td>
</tr>
</tbody>
</table>

* N.I.D. = Minimal Immunizing Dose in cc.