January 17, 1962

Dr. Albert B. Sabin  
Children's Hospital  
Research Foundation  
Elland Avenue and Bethesda  
Cincinnati 29, Ohio  

Dear Albert:  

The enclosed copy of a letter from Barnett as well as copy of his contribution to the April 1961 issue of the Arthropod-Borne Virus Information Exchange Newsletter concerning viruses isolated from sandflies will give you the gist of his discoveries to date.  

Yours sincerely,  

R. M. Taylor, M.D.  

RMT:mhp  
Encs.
IN Reply Refer To: MEDEC-ZCE

JAN 16 1962

12 January 1962

Dr. Richard M. Taylor
California State Department of Public Health
Viral and Rickettsial Laboratory
2002 Acton Street
Berkeley 2, California

Dear Dr. Taylor:

I have received your letter of January 8th concerning your correspondence with Dr. Sabin on the question of whether or not the term "Phlebotomus fever" should continue to be used. Please feel entirely free to refer our newsletter reports to him.

There are a few points I would like to make in regard to the question. First, the term "sandfly" has been restricted in the entomological literature of the past ten years to the genus Phlebotomus and its closely related genera including Sergentomyia. The confusion resulting from its application to Culicoides and its relatives, is rapidly disappearing because the latter are now commonly designated "biting midges". With reference to the virus isolates from sandflies of the genus Sergentomyia, we should point out that while these viruses appear to belong to the sandfly fever virus family, we have not yet demonstrated their relation to human or animal disease. I have hopes that this summer's work will provide some answers on the medical significance of these viruses.

Sincerely yours,

HERBERT C. BARNETT
Lt Colonel, MSC
Chief, Department of Entomology
REPORT FROM DR. HERBERT C. BARNETT
DEPARTMENT OF ENTOMOLOGY
WALTER REED ARMY INSTITUTE OF RESEARCH
WASHINGTON, D. C.

Virus isolation processing of sandflies collected in West Pakistan and Iran during 1959 has been completed. One hundred fourteen lots containing 12,656 sandflies have been processed and 39 virus isolates obtained. The virus isolate yield from sandflies collected in West Pakistan was as follows: 7 isolates from 37 lots (3,691 specimens) of female Phlebotomus tested, 3 isolates from 10 lots (1,728 specimens) of male Phlebotomus tested, 3 isolates from 15 lots (1,590 specimens) of female Sergentomyia tested, and 1 isolate from 1 lot (34 specimens) of male Sergentomyia tested. The virus isolate yield from Iranian sandflies was as follows: 22 isolates from 40 lots (4,123 specimens) of female Phlebotomus tested, and 3 isolates from 11 lots (1,490 specimens) of male Phlebotomus tested. Ten of the virus isolates have been reisolated from the original sandfly inocula and the remainder are currently being processed for reisolation.

Identification of the viral isolates obtained from sandflies has been limited to one isolate from West Pakistan--identified as the Sicilian strain of sandfly fever. Identification of the majority of the isolates
has been hampered by low titers in the antigens, even in instances where
17 to 31 suckling mouse passages have been made. Hyperimmune rabbit
sera prepared from some of the isolates have been unsatisfactory to date.
However, it is apparent from neutralization test results that many of the
isolates represent previously undescribed viral agents and some grouping
has been accomplished by cross protection challenge tests in mice.

Eight virus isolates have been obtained from the sera of febrile
patients having clinical syndromes consistent with that described for
sandfly fever. Four of these were obtained from patients in West Pakistan
and 4 from patients in Iran. Two of the isolates from Pakistan and two
from Iran have been reisolated from the original inocula. Three of the
viral isolates from Iran appear to be the Sicilian strain of sandfly fever
while the fourth remains unidentified, and apparently is unrelated to
either the Sicilian or Naples strains of sandfly fever. One of the Pakistan
isolates from patients appears to be related to the Sicilian strain but the
remaining three are unidentified.

The colony of Phlebotomus papatasii established at WRAIR with
materials collected in Pakistan and Iran in 1959 was maintained for five
generations and then died out. A new colony of this species has been
established from material collected in the Peshawar area of West Pakistan
in 1960 and appears to be better established than the original colony,
although it is only in the third laboratory reared generation. A colony
of Phlebotomus argentipes, the vector of kala-azar in the Indian sub-
continent has also been established at WRAIR.