

TABLE 1  
RESULTS OF TRANSMISSION EXPERIMENTS WITH NEUROTROPIC VIRUSES  
Preliminary Summary

Viruses		El-1-Per- drau	Le Fevre	"W"	Total		
I. Rabbits inoculated with original virus .....		7	9	5	21		
Fatalities	Number of deaths .....	7	6	5	18		
	Period of survival (days) .....	3-64	9-54	8-9			
	Paralysis .....	1	1	5	7		
	Histological Not completed .....	0	0	1	1		
	examination Negative .....	6	1	3	10		
of brain Encephalitis .....	1	5	1(?)	7			
II. Test rabbits bitten by potentially infected mosquitoes .....		Exp. 1	Exp. 2	Exp. 1	Exp. 2	16	97
		6	33	15	27		
Fatalities	Number of deaths .....	6	19	14	24	11	74
	Period of survival (days) .....	15-50	4-55	11-50	5-64	5-71	
	Paralysis .....	2	0	5	0	0	7
	Histological Not completed .....	2	3	10	1	7	23
	examination Negative .....	3	14	2	20	3	42
of brain Encephalitis .....	1	2	2	3	1	9	
III. Rabbits inoculated with brain material from the test rabbits (II) .....		15	19	37	24	9	104
Fatalities	Number of deaths .....	9	10	28	19	3	69
	Period of survival (days) .....	10-76	2-11	6-71	2-24	3-33	
	Paralysis .....	2	0	6	2	1	11
	Histological Not completed .....	1	6	22	8	1	38
	examination Negative .....	6	3	5	10	1	25
of brain Encephalitis .....	2	1	1	1	1	6	

cally the sections of brain and spinal cord were negative. Specimens of blood collected before death and suspensions of brain have been inoculated into normal rabbits, some of which have died and are now being studied.

In conclusion we wish to reemphasize the fact that the studies outlined in this report are not yet complete; and that additional work will be necessary to determine whether or not the tissues of those animals which died after being bitten by the test mosquitoes contain the specific viruses with which the respective experiments were initiated. It is also considered possible that, as in all extensive experiments with rabbits, some of the animals may have died of unrecognized extraneous causes. However, a large number of untreated control rabbits were observed during this period and only a few of these died with diarrhea, none of them showing paralysis. *Encephalitozoon cuciculi* was not found in the brain sections of any of the experimental animals.

As indicated in Table 1, irregular results were obtained with the rabbits of Group II which were bitten by the test mosquitoes, and this was also true of the animals in Group III which had received brain inoculations from the Group II rabbits. However, taken as a whole, they do not differ greatly from the results

obtained in the rabbits of Group I, which were inoculated directly with the original viruses.

In view of the incidence of death and paralysis among the experimental animals, and particularly because of the nine rabbits and one monkey which showed the histological lesions of encephalitis after being bitten by the mosquitoes, we feel that the work already done strongly indicates that the viruses used have been transmitted by *A. aegypti*, but that further investigation is required to furnish absolute proof.

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### BOOKS RECEIVED

- CHAMBERLIN, ROLLIN T. and PAUL MACCLINTOCK. *College Text-Book of Geology: Part I: Geologic Processes and Their Results*. Second edition, revised. Pp. xi + 445. Holt. \$3.00.
- CHANT, C. A. and E. F. BURTON. *Text-Book of College Physics*. Pp. xiv + 541. 574 figures. Holt. \$3.25.
- HATFIELD, H. STAFFORD. *The Inventor and His World*. Pp. v + 269. Dutton. \$2.40.

<sup>2</sup> With the technical assistance of Staff Sergeants George F. Luippold and Jesse F. Rhodes, Medical Department, U. S. Army.