encephalitis. Since this has been an interepidemic period, our method of study has been to determine experimentally the susceptibility of various species. Among others, wild gray house-mice *(Mus musculus)* have been tried and found susceptible.

Up to the present, virus has been carried (by intracerebral inoculation) through 10 passages in wild mice and has retained its infective titer as tested on Swiss mice. Furthermore, a test with rabbit antiserum showed specific protection against passage virus. In addition to the intracerebral route we have also succeeded in transmitting the infection to wild mice by the intranasal route.

In another series of experiments we have found it possible to transmit infection to Swiss mice by feeding infected material but in a single experiment so far performed have failed to infect a wild mouse by this route. The investigation is still in progress and this fragmentary report is made at this time because of the possibility of human cases occurring again this summer, at which time it would be desirable to look for virus in wild mice trapped in the households where cases have occurred.

10665 P

Infection of Mice by Feeding of Tissues Containing the Virus of St. Louis Encephalitis.*

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In attempts to determine whether the injection of young mice would serve as a method for the detection of smaller amounts of virus, newly born, unweaned Swiss mice have been inoculated intracerebrally or intranasally with tenfold dilutions of suspensions of infected adult mouse brains. These mice have been found susceptible and preliminary experiments suggest the possibility that newly born mice will succumb to one-tenth the dose necessary to kill grown mice by the respective routes.

In the course of these experiments it has been noted frequently that the mothers had devoured their dead or moribund offspring. In 3 of such cases the mothers were found dead after intervals of 5 to 7

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days. This suggested the possibility of the mothers having contracted the infection by feeding and accordingly the brain of the last one was tested by passage to other mice and found to contain virus. In addition, grown mice of both sexes were allowed to feed on moribund or dead, newly born mice previously infected with virus by the intracerebral route and in 2 of 7 instances the mice died or were sick 7 days after feeding. From these, virus was obtained from the brain by passage to grown mice. A few experiments performed so far, in which mice have been allowed to eat infected adult mouse brains, have all failed to result in clinical infection. This is in agreement with the findings of Brodie.[1]

The importance of the observation that adult mice can be infected by eating the bodies of infected, newly born mice, is that this mode of entry may have epidemiological significance. It is the only mode of entry so far described in which this infection has been transmitted from mouse to mouse by some natural means and not by inoculation. It is particularly important in conjunction with the fact that the wild mouse is susceptible to the virus.

10666 P

Relation of Methionine, Cystine and Choline to Renal Lesions Occurring on Low Choline Diets.

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In a previous report[1] it was demonstrated that a severe pathological state characterized by hemorrhagic degeneration of the kidneys occurs within 10 days in young rats maintained on a low choline diet. This deficiency was prevented by choline. It was suggested that proteins relatively high in methionine and low in cystine possessed a choline-sparing action since the deficiency was produced more readily on diets containing fibrin than on those containing casein. Subsequent work has confirmed the earlier suggestion that choline might prevent the renal lesion resulting from the addition of cystine to a purified diet containing casein. Furthermore, it has been found

[1] Brodie, M., PROC. SOC. EXP. BIOL. AND MED., 1935, **32**, 1647.

[1] Griffith, W. H., and Wade, N. J., in press.