extracts, or both. Investigations along these lines are in progress; it may be stated in a preliminary way, however, that, on the whole, there was a rough parallelism with the precipitin titre; secondly, in our hands, the heat-killed resistant *B. paratyphosus B.* organism specifically absorbed the anti-*B. paratyphosus B.* phage.[5, 6, 7]

To gather more information on the specificity of the reaction, the bacillary preparations employed in the experiment mentioned above and also that of *B. dysenteriae* (Shiga) were tested against anti-*B. dysenteriae* (Shiga) phage and inhibition was obtained only in the case of the homologous substance.

The specific behavior of extracts of *B. suipestifer* and the *B. paratyphosus B.* group of organisms toward their homologous phages indicates that the method may lend itself to a classification of the Salmonella group of organisms in terms of bacteriophage action perhaps in a manner similar to the serum reactions with the whole bacillus or extracts thereof.[8] Should other instances be found where extracts of resistant organisms specifically inhibit the phage derived against the parent strain, this technique and perhaps also absorption by dead bacilli would offer the advantage of revealing relationships to be expected from a serological point of view, but not demonstrable by direct phage action.

The demonstration of phage inhibition by solutions of bacillary extracts supplies a reaction for chemical studies on bacillary antigens in terms of bacteriophage.

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Attempts to Transmit Poliomyelitis to Mice, Rats, Guinea Pigs and Rabbits.*

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The successful transmission of poliomyelitis to the commoner and cheaper laboratory animals would be of inestimable assistance

[5] Applemans, R., *Comp. rend. soc. biol.*, 1922, **86**, 508.

[6] Gohs, W., and Jacobson, I., *Z. f. Immunitats.*, 1927, **49**, 412.

[7] Flu, P. C., *Centr. f. Bakt.*, I Orig., 1923, **90**, 374.

[8] Furth, J., and Landsteiner, K., *J. Exp. Med.*, 1929, **49**, 727.

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to investigations upon infection, immunity and specific therapy of this disease. Since Flexner and Lewis[1] recorded the failure of dinitrophenol (hereinafter called αDNP) increases the rate of goats, pigs, sheep, rats, mice, dogs and cats, various other investigators have attempted transmission to the lower animals but with uniform failure except in the case of monkeys and apes.

Now that it is known that syphilis may be transmitted to mice, rats and guinea pigs and that *Spirochaeta pallida* may survive in the lymph glands, brain (especially of mice) and other organs for long periods of time without any clinical signs or symptoms of the disease, we have sought to transmit the virus of poliomyelitis to mice, rats, guinea pigs and rabbits by injecting them intracerebrally with 0.1 to 0.2 cc. of 10% emulsions of monkey poliomyelitic spinal cord.

Four animals of each group were inoculated under ether anesthesia and after an interval of 3 weeks, during which time the 16 animals were carefully observed for any possible signs of infection, all were chloroformed and the brains removed. A 10% emulsion of the anterior lobes of the cerebrums of the 4 mice was prepared and injected intracerebrally into 4 fresh mice, the emulsions being prepared from the sites of the former injection. Similar emulsions were prepared of the inoculated sites of the brains of the 4 rats and inoculated into 4 fresh rats; similar emulsions were prepared of the guinea pig and rabbit brains and likewise inoculated into 4 fresh guinea pigs and rabbits respectively. After 3 weeks of observation this procedure was repeated a third time and finally a fourth time before the experiments were terminated. It was our hope that some virus may persist and gradually acquire pathogenicity but in every instance none of the large number of mice, rats, guinea pigs or rabbits developed the slightest clinical evidences of poliomyelitic infection nor could we find any histological evidences of infection in sections of the spinal cords.

In one instance we inoculated a monkey intracerebrally with 0.2 cc. of a 10% emulsion of rabbit brain removed 3 weeks after inoculation with monkey poliomyelitic cord (Rockefeller Institute), but this monkey did not develop poliomyelitis, suggesting that the virus failed to survive in the brain of the rabbit.

[1] Flexner, S., and Lewis, P. A., *J. Exp. Med.*, 1910, **12**, 227.