From the results so far obtained it seems justifiable to conclude that we are dealing with a strain of typhus fever virus isolated for the first time from local house rats.

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Influence of Genetic Relationship on the Success of Homeoplastic Transplants of Adrenal Glands in Albino Rats.

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It has been demonstrated in studies by Wyman and tum Suden[1] and by us[2] (with Nilson) that homeoplastic transplants of adrenal glands may be successful when carried out between adult rats of inbred strains. This is in contrast to the consistent failure of adrenal transplants to become established as functional grafts when carried out between animals of different strains.

The present report is concerned with a further investigation of the problem of homeoplastic transplants of adrenal glands in a Wistar strain of rats which had not been inbred. Three series of experiments were carried out in which the adrenal glands were exchanged between 20 pairs of siblings, 20 pairs of first cousins, and 20 pairs of rats more remotely related than second cousins.

The animals used were all adult female rats of an albino strain. The animals were matched into pairs according to body weight and were operated under ether anesthesia employing aseptic technic. The adrenal glands were removed from one animal through a lumbar incision and sutured to the ovaries of the other animal of the pair. The adrenals of the second animal were removed and likewise sutured to the ovaries of the first. All animals were given maintenance doses of cortin for 10 days after the operation. A standard diet was fed which contained 0.24% sodium and 1% potassium. All grafts were removed surgically from those animals which survived for 120 days. These animals were again given maintenance

[1] Wyman, L. C., and tum Suden, C., *Endocrinol.*, 1937, **21**, 523.

[2] Ingle, D. J., Higgins, G. M., and Nilson, H. W., *Am. J. Physiol.*, 1938, **121**, 650.

doses of cortin for 10 days following this second operation and their subsequent survival periods were noted. After withdrawal of cortin all but 2 of the animals died within a period of 25 days. The transplanted glands of these 2 animals were found to be degenerated. One of them was found to have accessory cortical tissue at necropsy.

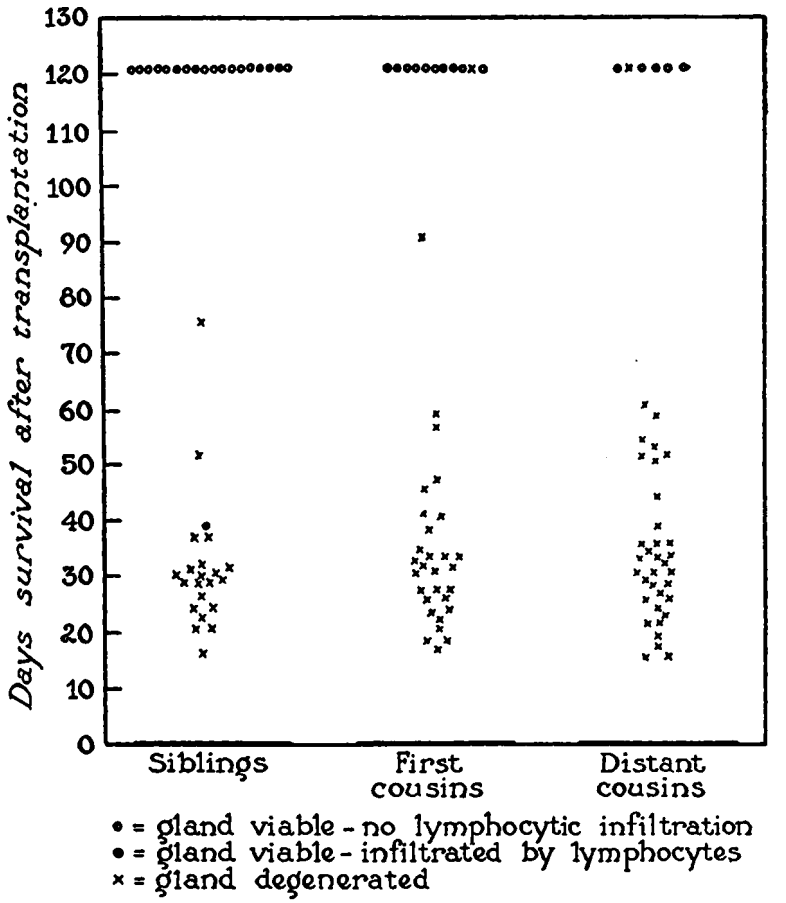

FIG. 1.

Length of survival of homeoplastic transplants of adrenal glands in a strain of albino rats.

The data on survival and on the condition of the transplanted tissue are summarized in Fig. 1. A marked difference in the incidence of success is noted. The incidence of successful grafts was much greater among siblings, less so among first cousins and least so among distant cousins.