ial tissues was utilized. (Gomori '39) (Scharrer '50).

For the demonstration of the appearance of the blood brain barrier, animals were injected at the same intervals with the dye trypan blue at a ratio of 1 cc of 1% trypan blue/50 grams of body weight. The presence or absence of this dye in the tissue of the brain was selected as an indicator of the efficiency of the blood brain barrier. Six hours following injection the animals were perfused with .09% saline to wash out the blood. 1000 mg. of brain tissue were then homogenized in 2 cc of 70% Trichloroacetic acid. Following centrifugation at 300 g for 20 minutes, the supernatant was placed in a Coleman spectrophotometer tube and readings were made at 660 mu.

1) Our preliminary observations indicate that the number of capillaries per unit area of cerebral cortex is reduced in the cretinoid brain.

2) Under the conditions of our experiments no quantitative difference between the penetration of the trypan blue dye into brain tissue in normal and cretinoid animals could be detected.

At the present time consultations with various investigators are planned to devise more critical and refined experiments to test the validity of the preliminary findings reported here.

Effects of Donor Kidney Homogenates on the Survival of Kidney Tissue Homotransplants

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Previously, the continuous state of successful parabiosis was found to be the environment which permitted the survival of reciprocally exchanged kidney tissue homografts. The present experiment was devised to test the use of donor kidney homogenates as an antigen neutralizing mechanism to facilitate the survival of donor homografts in separated parabionts. Fourteen successfully parabiosed pairs of albino rats were surgically separated after about 30 days in parabiosis and the pairs divided into three groups. Donors from non-littermate stock and of varying ages were placed with each pair. Each donor supplied its left kidney for the homogenate and the right kidney as the source of two homografts.

The right partner of parabiont pairs (5 animals) of Group I received 5 homogenate injections intraperitoneally of 0.5 cc. on alternate days, and on the last day of injection was homografted by donor kidney tissue to the prepared kidney sites of both the right and left animals. Group II (4) received 7 homogenate injections. Group III (5) received similiar treatment except that 10 homogenate injections were given. The left copartners served as controls. Both animals, of each pair, were sacrificed one month after homotransplantation. Histological examination of the tissues demonstrated that homogenate injections did not permit the survival of the homografts, but minimized the local reaction of the host to the graft.