

was kept for signs of retarded development or retrogression in the tumors thus brought under the continued influence of blood from a resistant animal, but no alteration of the sort was observed. The growths extended with the same rapidity as those in control animals. The findings are against the presence in circulation of destructive antibodies for cancer.

The Flexner-Jobling adeno-carcinoma was the tumor employed. Animals were selected which bore in the subcutaneous tissue of one side a vigorous growth 1 to 3 centimeters in diameter. Some were kept as controls and others placed in parabiosis with resistant rats. These latter had failed on three successive implantations to develop a tumor. The appearance in most of them of a small retrogressing nodule after the first implantation, and the complete absence of such a nodule after the later ones pointed to an acquired immunity in addition to the natural resistance. Experiments with rats of high acquired immunity are now under way.

Sauerbruch and Heyde found that for the healing together of rabbits or dogs it is imperative that they be young and of the same litter. Even then they did not endure the union for more than two weeks, one succumbing within that time to a cachexia, incident, it is supposed, to the new metabolic relation. My observations show that white rats tolerate much better the conditions of union. Adult animals of different litters will heal together *per primum* and live in parabiosis as long as thirty-four days. Evidently those tissue distinctions between individuals based on parentage and age are much less marked in white rats than in some other species.

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**The excretion of calcium and magnesium after
parathyroidectomy.**

By **JEAN V. COOKE.** (By invitation.)

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The brains of dogs dying with parathyroid tetany contain a slightly greater amount of calcium than do those of normal dogs, which would indicate that a decreased calcium content of the brain is not constant in tetany. The magnesium content of the brain is

practically the same in both normal and tetany dogs. The calcium and magnesium content of the feces of normal and parathyroidectomized dogs is similar. During fasting, the excretion of both metals is diminished. The excretion of magnesium, in the urine, in dogs on a constant diet, as well as in those fasting, runs parallel with that of calcium. The excretion of both metals is markedly diminished during fasting. After parathyroidectomy with the animal fasting, the elimination of magnesium is greatly increased, while that of calcium remains unchanged. The augmentation of the magnesium begins before tetany is observed. This increased elimination of magnesium indicates that although there is a disturbance of inorganic equilibrium, it is not limited to calcium. It is suggested that the tetany represents a condition of altered salt equilibrium in the nerve cells brought about by a disturbance in the catalytic processes of the body which increases the acid factors.

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Non-fixation of complement.

By **HIDEYO NOGUCHI.**

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With a view of obtaining an antihuman hemolytic amboceptor on a large scale, I immunized a goat with thoroughly washed human corpuscles. I obtained a serum of a titre of 0.01 cubic centimeter, that is, capable of complete hemolysis with 1 cubic centimeter of a one per cent. suspension of washed human corpuscles in the presence of 0.01 cubic centimeter of normal goat's or guinea-pig's serum. The reactivating property of normal goat's serum for this amboceptor was found to be somewhat superior to that of guinea-pig's complement. As it would be of great economical value for complement fixation tests to utilize an amboceptor and complement from such a large animal as a goat, instead of using an amboceptor from rabbits and complement from guinea-pigs, I tested the amboceptor and complement from goats as to the possibility of using them in complement fixation tests in general. *It was soon found that no complement-fixation phenomenon can be obtained by using them (antihuman amboceptor from this im-*