study of this question the white rat is certainly the most appropriate animal.

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The hemolytic reactions of the blood in dogs with transplantable lymphosarcoma.

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Dogs with lympho-sarcoma in every stage of growth were made use of, including those in which growth was active and progressive, those in which the tumor was quiescent, those in which the growth was regressing, and those in which recovery with complete absorption of the tumor had taken place. Some of the dogs were in good general condition, others were cachectic. Controls were also made use of, including dogs in poor and in good condition. In all, the material comprised 34 dogs, 18 with a tumor history, and 16 without. These were all bled from the femoral artery or jugular vein. In all of these dogs, blood was obtained for serum, and for a 1 per cent. suspension of corpuscles. The serum of each animal was tested on the corpuscles of a number of other animals in order to determine its hæmolytic power. Up to the present time over 300 such tests have been made. The serum obtained from tumor dogs is almost without exception possessed of hemolytic power. This is least marked in the early and active stages of tumor growth, more so in the broken down and softened tumors. It persists even in the dogs which have recovered of their tumors. The corpuscles of the tumor dogs manifest a much greater resistance to this hemolytic activity of the serum than do the corpuscles of other dogs. The resistance is not absolute in the test tube, but in dilutions which are just sufficient to demonstrate the hemolytic activity of the serum from tumor animals on normal corpuscles, the corpuscles from tumor animals remain intact. The serum of animals without tumors has almost without exception failed to show any hemolytic power and the corpuscles have not been resistant to the serum derived from tumor dogs.

The characteristics of this hemolytic substance in the serum of tumor dogs have been the subject of further study. The serum loses some, or only little of its power, by being passed through a Berkefeld filter. Heating it to 85° for one hour does not destroy its activity. It differs markedly from the immune bodies known as amboceptors. It resembles in certain respects the hemolytic substances derived by extraction from necrotic tumors.

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On the circulation through the kidneys. I. On vaso-motor reactions. II. The renal blood flow in relation to the pressure in the ureter and bladder. III. The effect of solutions of adrenalin.

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The experiments embodied in this abstract deal quantitatively with the renal blood flow, under different experimental conditions. They were performed upon dogs with the stromuhr described by Burton-Opitz.[1] The right and the left renal veins were used.

Besides the quantitative data, the authors succeeded in obtaining vaso-motor effects on stimulation of the præ, as well as post ganglionic fibers, the constrictory effects being in both cases the most prominent. The constriction of the blood vessels of the kidney was betrayed by a decrease in the venous return from this organ and a fall in venous blood pressure, this change being preceded by a brief increase of flow.

Among the post ganglionic fibers (renal plexus) a nerve was isolated which gave decided vaso-constrictory results.

In another series of experiments the pressure in the ureter was increased while the blood-flow in the corresponding renal vein was being recorded. The pressure was increased by means of air led into the ureter in the immediate vicinity of the kidney and of the bladder. Every increase in pressure from 20–120 mm. Hg resulted in a decrease in the venous return from the kidney and a

[1] Burton-Opitz: Archiv. f. d. ges. Physiologie, 1908.