

ammonium hydroxide. It does not give a biuret reaction; is not destroyed by boiling; is adsorbed by animal charcoal and aluminum hydroxide and does not lose its physiological effect if exposed to air at room temperature for 30 days. Glacial acetic acid does not destroy its pressor effect. Inhibiting autolysis of the crushed adrenal glands by the addition of potassium cyanide prevents the formation of the pressor substance as determined by chemical and physiological tests.

7204 P

Effect of Pancreatectomy on Glutathione Content of Blood.

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Complete pancreatectomy in the dog causes an increase of over 100% in the non-glucose reducing substance of venous blood. (Table.) This substance is determined quantitatively by the iodine

TABLE I.
Effect of Removal of Pancreas on Blood Glucose and Glutathione.

Dog No.	Before removal of pancreas		After removal of pancreas									
			4 days		6 days		10 days		13 days		15 days	
	Glucose mg. %	Glutathione mg. %	Glucose mg. %	Glutathione mg. %	Glucose mg. %	Glutathione mg. %	Glucose mg. %	Glutathione mg. %	Glucose mg. %	Glutathione mg. %	Glucose mg. %	Glutathione mg. %
5	83	24.6	247	28.8	229	46.0	280	31.9	272	27.6	200	28.2
6	80	19.6	256	35.0	165	41.1	260	36.6	254	21.7	241	30.0

titration method of King *et al.* for blood glutathione as modified by Mancorps and Schmid.¹ At this stage of the research we assume this substance to be glutathione; however, the method employed is not specific but may include such substances as thioneine and cystein. Ascorbic acid also interferes with this titration. The above mentioned interfering substances are probably not present in quantities sufficiently great to cause appreciable error in our interpretations. Further work on this phase is in progress.

¹ Mancorps, C., and Schmid, R., *Hoppe-Seyler's Z. fur Physiol. Chemie*, 1932, 205, 141.

Section of the splanchnics in the dog causes a decrease of approximately 50% in the blood glutathione, but no effect on the *experimental diabetes* following *pancreatectomy*. Acetone given by mouth in dosages of 6 cc. per kilo of body weight causes this glutathione-like substance to increase approximately 200% above normal and does not return to normal for approximately 3 days. Removal of the pancreas on the blood glutathione has been studied by Dott D. Ferrari.² Our results are at variance with his findings. Blood glutathione determinations before *pancreatectomy* in his dogs are not published.

7205 P

Influence of Bleeding, Diet, Distemper, and Starvation on Serum Phosphatase Activity.

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In the course of a study of serum phosphatase activity in the rabbit, dog and rat, it was found that bleeding, diet, distemper, and starvation exert a marked influence upon the values obtained. Bodansky and Jaffe¹ have pointed out that a relationship exists between the type of diet, the nutritional state of the animal, and the plasma phosphatase activity. For convenience of presentation, data is given under the 4 respective headings. Serum phosphatase activity was determined according to the method of Bodansky.²

1. The influence of bleeding upon serum phosphatase activity was determined in adult rabbits. The serum obtained from 25 cc. of blood, drawn from the heart of rabbits, gave average values in a group of 14 animals for calcium of 13.96 mg./100 cc., for inorganic phosphorus 5.04 mg./100 cc., and for phosphatase activity 4.14 mg./100 cc. A second 25 cc. sample of blood drawn 8 to 15 days later showed the influence of the previous bleeding upon serum constituents of otherwise normal rabbits maintained on the same diet. The values for serum calcium averaged 14.13 mg./100 cc., for inorganic phosphorus 3.74 mg./100 cc., and for phosphatase

² Ferrari, Dott R., *Boll. de Soc. Med.-Chir.*, Pavia, 1933, **47**, 305.

¹ Bodansky, A., and Jaffe, H. L., *Proc. Soc. Exp. Biol. and Med.*, 1931, **29**, 199.

² Bodansky, A., *Proc. Soc. Exp. Biol. and Med.*, 1930, **28**, 760.