

general dilatation of the vascular bed; (2) some degenerative changes affecting chiefly the blood vessel intima.

## 5311

**Stability of Esterase and Ereptase in Ground Liver and Kidney Preserved in Glycerol.**

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It was shown<sup>1</sup> that ground dog's liver preserved in pure glycerol had retained its peptone and ester-splitting powers unimpaired for a period of 34 months. In some instances it was found that the extract showed an even greater esterolytic power after standing in glycerol for nearly 3 years than after extraction for a period of 21 days.

The ground organs of these experimental animals have now been

TABLE I.

Animal	Organ	Esterolytic Activity After 21 days in Glycerol Shown in cc. 0.1 NaOH	Esterolytic Activity After 13 years in Glycerol Shown in cc. 0.1 NaOH	% Gain or Loss
Ph. 16d	Liver	3.27	3.53	+7.9
Ph. 16c	"	4.15	4.20	+1.2
Ph. 17c	"	3.70	3.55	-4
Ph. 16d	Kidney	2.25	1.36	-39.5
Ph. 16c	"	3.75	1.95	-48.0
Ph. 17c	"	2.65	1.38	-48.0
Ave.	Liver	3.71	3.76	+1.2
"	Kidney	2.88	1.56	-46.0

TABLE II.

Animal	Organ	Peptolytic Activity After 21 days in Glycerol Shown in cc. 0.1 NaOH	Peptolytic Activity After 13 years in Glycerol Shown in cc. 0.1 NaOH	% Gain or Loss
Ph. 16c	Liver	1.25	0.96	-23.2
Ph. 16c	"	1.45	1.05	-27.5
Ph. 17c	"	2.35	1.75	-25.5
Ph. 16d	Kidney	4.75	2.15	-54.5
Ph. 16c	"	4.20	2.28	-45.5
Ph. 17c	"	5.50	1.85	-70.0
Ave.	Liver	1.68	1.25	-25.5
"	Kidney	4.82	2.09	-57.0

<sup>1</sup> Simonds, J. P., *J. Exp. Med.*, 1918, **28**, 663; *Am. J. Physiol.*, 1919, **48**, 141.

standing in glycerol in a dark place, well corked for from  $12\frac{1}{2}$  to  $13\frac{1}{2}$  years. The esterolytic and peptolytic powers of the clear filtrates have again been tested using dilutions and technique similar to those of the original report.

The results of these experiments show that ground dog's liver preserved in glycerol retained its esterolytic activity unimpaired for 13 years, but lost about one-fourth of its peptone-splitting action during the same period. Ground dog's kidney similarly preserved for 13 years lost slightly less than half its original ester-splitting power and somewhat more than half of its former power to decompose peptone into amino acids.

## 5312

**I. Influence of Eggwhite upon the Absorption of Bacteria from the Intestinal Tract.**

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Friedberger<sup>1</sup> states that prolonged boiling of eggs, when fed exclusively, leads to severe trophic disturbances; Newburgh<sup>2</sup> fed eggwhite to rabbits and produced renal injuries after a short period of time. Galanini<sup>3</sup> fed only eggwhite to white rats and caused albumen in the urine before death; Friedberger and Abraham<sup>4</sup> state that egg diets frequently cause toxic effects. The harmful results of an exclusive egg diet are mainly due to the white of the egg (Stenquist,<sup>5</sup> Baglioni,<sup>6</sup> Bateman,<sup>7</sup> Iskikawa,<sup>8</sup> Arnold<sup>9</sup>). In this communication we report the results of experiments dealing with absorption through the blood stream.

The abdomens of 4 dogs, fasted for 24 hours, were opened under

<sup>1</sup> Friedberger, E., *Deut. Med. Woch.*, 1926, **52**, 1766.

<sup>2</sup> Newburgh, L. H., *Arch. Int. Med.*, 1919, **24**, 359.

<sup>3</sup> Galanini, Antonio, *Boll. Soc. Ital. Biol. Sperm.*, 1929, **4**, 91.

<sup>4</sup> Friedberger and Abraham, A., *Deut. Med. Woch.*, 1929, **55**, 383.

<sup>5</sup> Stenquist, F., *Deut. Med. Woch.*, 1928, **54**, 1920.

<sup>6</sup> Baglioni, S., *Boll. d. Soc. Ital. di Biol. Sperm.*, 1928, **2**, 978.

<sup>7</sup> Bateman, G. W., *J. Biol. Chem.*, 1916, **26**, 263.

<sup>8</sup> Iskikawa, Issaka, *Jap. J. Med. Science*, 1928, **2**, 205.

<sup>9</sup> Arnold, L., *Am. J. Hyg.*, 1928, **3**, 604.