been show previously[2] exposure of about one-eightieth of the surface area of the skin of the rat produces greater healing of rickets than of the whole animal, it may be inferred that perhaps the above data might be applied to humans. One-eightieth of the surface area in the human would always be less than the area of the face and hands. It should be possible to obtain ample radiation in this vicinity for the prevention of rickets for at least 8 to 10 months of the year by exposure of the face and hands to sunshine.

6363

Effects of the Introduction of Blood from Bred Rabbits upon Immature Rabbits.*

CHARLOTTE DUMONT, F. E. D'AMOUR AND R. G. GUSTAVSON.

From the Research Laboratories, University of Denver.

The purpose of this study was to demonstrate the occurrence of anterior lobe hormone in the blood of the bred rabbit during the time elapsing between coitus and ovulation.

In the first series of experiments 24 rabbits were bled to death at times varying between 1½ and 12 hours post-coitum. The serum varying in amounts between 20 and 60 cc. was injected into immature females. One animal that had received 60 cc. of serum from a donor killed 1½ hours post-coitum responded positively.

In the second series, the donors were killed between 1½ and 2 hours post-coitum, the blood defibrinated and immediately introduced intravenously into immature females which had first been bled of part of their own blood. Five of the 12 animals used

TABLE I.

Post Copulation Time	Blood Removed from Recip't	Blood Int'd from Donor	Time Killed Post-Injection	Results
Hr.	cc.	cc.	hr.	
1¾	50	95	51	Large Corp. Hemm.
1¾	55	100	51	" " "
1½	60	95	52	Corpora Lutea.
1¾	45	75	48	Large Corp. Hemm.
1¾	50	100	48	" " "

[2] Knudson, Arthur, PROC. SOC. EXP. BIOL. AND MED., 1931, **29**, 314.

* This investigation was aided by a grant from the National Research Council, Committee for Research in Problems of Sex.

responded positively, either large corpora hemorrhagica or corpora lutea resulting. Controls given corresponding amounts of blood from unbred females or from males failed to respond. The results of the positive experiments are tabulated.

Urine collected from bred animals at periods of 8 and 12 hours post-coitum gave no response in immature rats.

Extracts of blood serum obtained by fractional precipitation with sodium sulfate from donors killed at varying times post-coitum and injected into immature rats in amounts equivalent to 50 cc. of blood serum gave no response.

Conclusions. Some evidence was obtained supporting the theory that ovulation in the rabbit occurs as a result of an increased production of anterior lobe hormone.

6364

Coprophagy as a Source of Vitamin B (B_1).

L. E. BOOHER AND T. KANEKO. (Introduced by H. C. Sherman.)

From the Department of Chemistry, Columbia University.

Many experimental investigations with animals on simplified food mixtures have indicated that the consumption of their own feces contributes something nutritionally beneficial, due either to unassimilated food residues or to a synthesis by bacteria in the intestinal tract. The report of Fridericia and coworkers[1] on the phenomenon which they termed "refection," whereby young rats deprived of the vitamin B-complex may recover "spontaneously" from the effects of this deficiency and may transmit this immunity to the need for vitamin B in the diet to other rats has been confirmed by several other investigators.[2, 3, 4, 5] According to these investigators the presence of a large proportion of *raw* starch in the vitamin B-deficient diet is an essential condition for the occurrence of refection. Mendel and Vickery[6] were unable to secure refection when they attempted to reproduce the conditions described by the Euro-

[1] Fridericia, L. S., *et al., J. Hyg.*, 1927, **27**, 70.

[2] Roscoe, M. H., *J. Hyg.*, 1927, **27**, 103.

[3] Kon, S. K., and Watchorn, E., *J. Hyg.*, 1928, **27**, 321.

[4] Roscoe, M. H., *Biochem. J.*, 1931, **25**, 2056.

[5] Kon, S. K., *J. Hyg.*, 1931, **31**, 543.

[6] Mendel, L. B., and Vickery, H. V., PROC. SOC. EXP. BIOL. AND MED., 1929, **26**, 552.