83.59% for the whole drug, crystalloid and colloid fractions respectively. Subsequent time intervals showed that the crystalloid fraction was eliminated more rapidly than the colloid fraction, which was long retained, the recoveries for the respective preparations at 2, 6, 12, and 24 hours being 49.81, 28.91, 7.43, and 6.06% for the crystalloid fraction and 53.79, 41.13, 28.79, and 33.45% for the colloid fraction. After 14 days less than 4% of the crystalloid fraction was recovered while in the case of the colloid fraction 36.92% was found to be still present in the body. The retention by the tissues of the whole drug was intermediate to that of the two fractions.

Neoarsphenamine. The results obtained in a similar study with neoarsphenamine were quantitatively different but identical in principle with those obtained for arsphenamine.

Conclusion. The separated colloid fraction of either arsphenamine or neoarsphenamine is retained long in the body in comparison with the crystalloid fraction which is rapidly eliminated.

13524 P

Prevention of Perosis by Biotin.*

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Perosis was reported[1] to be a symptom accompanying the egg white syndrome in chicks. In the present investigation, single-comb White Leghorn chicks were placed on the following diet at hatching: Yellow corn meal, 55 g; wheat middlings, 20; dried skim milk, 10; commercial casein, 10; ground limestone, 2; steamed bonemeal, 2; alfalfa meal, 1; choline chloride, 0.1; NaCl, 0.5; $MnSO_4$, 0.05; fresh raw egg white, 30 cc. The wet mixture was spread in thin layers and dried at 45°C, after which 0.3 g of fish oil blend (3000-A, 400-D) was added. In addition to dermatitis,[2] symptoms of perosis developed in from 50 to 70% of the chicks at the age of 3 to 5 weeks. If egg white was omitted from the diet, or if cooked egg white re-

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1 McElroy, L. W., and Jukes, T. H., PROC. SOC. EXP. BIOL. AND MED., 1940, **45**, 296.

2 Ringrose, A. T., Norris, L. C., and Heuser, G. F., *Poultry Sci.*, 1930-31, **10**, 166.

placed raw egg white, perosis did not develop. It was found in a preliminary experiment that all the symptoms were prevented by injecting a biotin concentrate† at a level which supplied approximately 3 μg of biotin daily. In the next experiment, crystalline biotin methyl ester‡ was injected into the breast muscle. Each chick received a total of 13 μg divided into 7 injections during a period which extended from the 12th to the 32nd day. Eight chicks were used in the injected group and 11 uninjected chicks served as controls. The results shown in Table I were observed on the 38th day.

TABLE I.

Supplement	% of birds showing Perosis	Dermatitis	Avg wt, g
None	55	82	216
Biotin	0	38	285

Feathering was superior in the injected group. The level of biotin administered, which averaged only 0.34 μg per bird per day for the duration of the experiment, was not sufficient to prevent dermatitis completely but was sufficient to prevent perosis.

13525 P

Lens Regeneration from the Iris in Urodeles and its Inhibition by Lens Reimplantation.*

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In recent publications[1, 2] reviews have been given which point out that the best evidence of lens regeneration from the dorsal iris is limited to a small group of salamanders (Triturus). It is of interest to know whether or not all of the Triturus group possess this power of lens regeneration. Therefore the effect of lensectomy in *Triturus torosus* was investigated.

† Kindly supplied by Dr. Y. SubbaRow, Lederle Laboratories, Pearl River, N.Y.

‡ Part of the biotin was generously furnished by Dr. Vincent du Vigneaud, and the remainder was purchased from the S. M. A. Company.

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1 Stone, L. S., and Dinnean, F. L., *J. Exp. Zool.*, 1940, **83**, 95.

2 Stone, L. S., and Sapir, P., *J. Exp. Zool.*, 1940, **85**, 71.