

tion was calculated from three nitrogen estimations (protein and N.P.N. in the original serum, and the total nitrogen of the filtrate). The chances for a cumulative error are, therefore, rather high. However, all determinations were carried out in the same apparatus under identical conditions, as nearly as they could be controlled, and hence the statistical treatment evaluated automatically the effect of errors arising in the analysis. Furthermore, errors in the determination of the protein and N.P.N. of the original serum would have a uniform effect throughout for each sample of serum and could not account for significant deviations in a portion of the curve.

It is concluded that there was a small but significant increase above normal in the globulin fraction of the serum proteins of the individuals with phenylpyruvic oligophrenia studied in this investigation. It is possible that the increase may have resulted from factors other than the particular pathology involved in this disease.<sup>†</sup>

### 11471

#### **Response of Various Breeds of Rabbits to Hamilton and Schwartz Test for Parathyroid Secretion.**

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In our earlier work<sup>1</sup> with the Hamilton and Schwartz<sup>2</sup> test for parathyroid hormone, we used 2 breeds of rabbits, raised by ourselves; a black and white Dutch strain and a gray Belgian strain, which included some albinos. All these rabbits gave a positive test when injected with 10 Hansen units of parathormone per kg. In a few instances injection with as little as 4 units per kg resulted in a positive reaction. Similar responses were given by hybrids of these 2 strains. (The H. and S. test depends upon the fact that successive feedings of  $\text{CaCl}_2$  result in smaller and smaller rises in serum Ca, so that after the 3rd or 4th administration of 100 mg of Ca as  $\text{CaCl}_2$  normal rabbits will show a rise of serum Ca of less than 1.2 mg per 100 cc, whereas if more parathyroid hormone than that normally circulating is present, a greater rise of serum Ca results, roughly proportional to the quantity of hormone administered.)

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<sup>†</sup> The phenylpyruvic blood samples were obtained from inmates of Letchworth Village through the courtesy of Dr. Harry C. Storrs, Superintendent.

<sup>1</sup> Baumann, E. J., and Sprinson, D. B., *Am. J. Physiol.*, 1939, **125**, 741.

<sup>2</sup> Hamilton, B., and Schwartz, C., *J. Pharm. and Exp. Therap.*, 1932, **46**, 285.

When New Zealand white or chinchilla rabbits were used for this test, it was found they were less sensitive than the Dutch or Belgian breeds. They required an injection of 20 or 30 units of parathormone per kg to react positively. Six chinchillas and 4 New Zealand whites all gave negative reactions when injected with 10 units per kg. With a dose of 20 units per kg of parathyroid extract only 3 of 5 chinchillas and 1 of 3 New Zealand white rabbits reacted positively, while 2 of each of these strains gave positive reactions only with a dose of 30 units per kg.

It is advisable, therefore, to determine the sensitivity of rabbits to be used for the Hamilton and Schwartz test. The animals should be at least 5 months old and they should be kept on a diet whose Ca:P ratio is one or more for several days before use.

#### 11472 P

#### **Agent of Lymphogranuloma Venereum in the Lungs of Mice.**

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It has been shown<sup>1</sup> that the agent of lymphogranuloma venereum readily initiates a fatal infection when introduced into the yolk-sac of the developing chicken embryo, in contradistinction to the well known low-grade character of the infection which results when the virus is placed on the chorio-allantois. In the former site the minute "granulocorpuscles"<sup>2</sup> which are believed to represent elementary bodies of the agent are found in enormous numbers. With this source of abundant virus at hand the possibilities of intranasal infection in mice were investigated, as has also been done recently by Schoen<sup>3</sup> who employed virus propagated in the Ehrlich mouse sarcoma.

Two strains\* of the lymphogranuloma venereum agent were

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<sup>1</sup> Rake, G., McKee, C. M., and Shaffer, M. F., *Proc. Soc. Exp. Biol. and Med.*, 1940, **43**, 332.

<sup>2</sup> Miyagawa, Y., Mitamura, T., Yaoi, H., Ishii, N., Nakajima, H., Okanishi, J., Watanabe, S., and Sato, K., *Jap. J. Exp. Med.*, 1935, **13**, 733.

<sup>3</sup> Schoen, R., *C. R. Acad. Sci.*, 1939, **208**, 772.

\* One strain was obtained through the courtesy of Dr. Wm. L. Fleming, the School of Hygiene and Public Health, Johns Hopkins University. The second was obtained through the courtesy of Dr. Marion Howard, Department of Medicine, Yale University.