Eighteen rats, each receiving five cc. of pneumococcus culture filtrate (Berkfeld) per day for the same period, failed to show that any protection against pneumococcus had been created.

The sera of four of the rats which were fed pneumococcus tissues were tested for agglutinins, precipitins and protective substances. Although used undiluted, the sera showed neither agglutinins nor precipitins during a two hour incubation period. However, protective substances of some kind do exist. Mice, injected with 0.20 cc. of such immune rat serum at the same time as they received the pneumococcus culture are protected against many times a dose which otherwise is fatal. Control experiments with normal rat serum were done at the same time.

At present an experiment is being carried out to determine whether rats which have been fed the tissues of animals killed by pneumococcus Type 1 are protected against Types 2 and 3 as well as against Type 1.

The work is being continued from several angles. Attempts to duplicate the favorable results obtained are to be made, using larger animals. Considerably larger numbers of pneumococci, both living and dead, are now being fed. Additional work is to be done on the value of the immune serum as a prophylactic agent. The duration of the protection and the therapeutic properties of the immune serum are to be determined.

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The effect of dye "blockade" on anaphylaxis and antibody formation in the guinea pig.

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The experiments reported here are a continuation of the work of Gay and Clark,[1] on the effect of endothelial blockade in antibody production.

In the present work guinea pigs were saturated with trypan

[1] PROC. SOC. EXP. BIOL. AND MED., 1924, xxii, 1.

blue (daily 1 cc. injections of a 1 per cent solution of the dye in distilled water). After ten injections the animals received sheep cells, according to the method of Lewis and Loomis.[2] The trypan blue injections were then continued until the first bleeding. The results are shown in the following table. Each group represents eight to ten animals.

TABLE—Average Serum Dilution Giving Complete Hemolysis.
Bleedings (No. Days after Sheep Cell Injection)

	5	8	9	18	22	30	33
Group I, Controls	600				1800		
Trypan Blue	10				865*		
Group II, Controls		1230		570		195	
Trypan Blue		12		25		100	
Group III, Controls			700		600		0**
Trypan Blue			10		325		0***

*Represents the average of the sera of 3 pigs: 1:100, 1:500, 1:2000.
**1 animal.
***2 animals.

In practically every case the pigs treated with trypan blue produced less hemolysin than did the controls. These figures indicate a gradual rise in the titre in the trypan blue animals, but in four cases the blood consistently contained no hemolysin, even after the twenty-second day.

These results are in complete agreement with those published by Gay and Clark.

Experiments were next tried to see what relation trypan blue blockade bore to anaphylaxis. Sensitized guinea pigs were given several injections of trypan blue. On reinjection of antigen all responded vigorously. Normal animals, injected with trypan blue for a period of ten days, sensitized with egg white and then further treated with trypan blue for two weeks, responded anaphylactically on reinjection of antigen. Thus it is clear that endothelial blockade, at least in guinea pigs, neither acts as an antisensitizer, nor as a desensitizer.

There appears, then, to be a different mechanism involved in the production of anaphylactic sensitization and the formation of antisheep hemolysin in guinea pigs.

[2] *J. Exp. Med.*, 1924, xi, 503.