protection to sensitized guinea pigs against one fatal dose of antigen. Diethylaminoethyl-xanthene-carboxylate is 70 per cent effective. Diethylaminoethyl-fluorene-carboxylate, aminophylline and epinephrine protect only 37 per cent of the animals. . . .

"The possibility that the main mechanism of aminophylline in bronchial asthma is the decrease in the resistance of the pulmonary circulation, is suggested."

A. W. F.

PINSCHMIDT, N. W.; RAMSEY, H., AND HAAG, H. B.: *Studies on the Antagonism of Sodium Succinate to Barbiturate Depression.* J. Pharmacol. & Exper. Therap. **83**: 45–52 (Jan.) 1945.

"In a recent publication Soskin and Taubenhaus (1) proposed the use of sodium succinate as an antidote to barbiturate poisoning. Its effectiveness was ascribed to the fact that the oxidation of succinate is not inhibited by the presence of barbiturates as is that of glucose, lactate and pyruvate (2). Sodium succinate therefore was assumed to furnish an oxidizable substrate until the barbiturate could be destroyed or excreted by the body. They found that the preanesthetic intramuscular administration of 100 mg. sodium succinate per 100 grams body weight protected rats against the fatal effects of sodium pentobarbital (8.5 mg. per 100 grams body weight, given intraperitoneally) in 85 per cent of the cases, whereas in the control group only 45 per cent of the animals recovered.

"These authors report succinate to be effective also in controlling the duration of anesthesia in rats given 2.5 mg. sodium pentobarbital per 100 grams body weight. . . .

"Lardy, Hansen and Phillips (3) were unable to confirm the above results in regard to control of the duration of barbiturate anesthesia. . . .

"The present experiments were undertaken for the purpose of testing further the properties of sodium succinate as an analeptic. . . .

"In the course of these experiments it was observed that stock solutions of sodium succinate left standing for a number of days lost much of their analeptic effect. . . .

"We were unable to demonstrate a reduction in the number of fatalities in mice by the administration of sodium succinate subcutaneously or intravenously. . . .

"5. Sodium succinate was shown to shorten duration of sodium pentobarbital anesthesia in rabbits to a limited extent. It was far less effective than a moderate dose of picrotoxin.

"6. Little additive analeptic effect was obtained by the simultaneous administration of sodium succinate and picrotoxin to rabbits previously given sodium pentobarbital."

A. W. F.

OPDYKE, D. F., AND BERGERON, GEORGES: *Muscle Tonus as a Factor in Hemorrhage and Shock in Dogs under Barbital Anesthesia.* Am. J. Physiol. **143**: 119–121 (Jan. 1) 1945.

"It appeared to us that dogs anesthetized with morphine and sodium barbital exhibited little or no tonus of the skeletal muscles even before instituting shock producing procedures. If this were true, then the loss of muscle tonus could not be an initiating factor, or even a contributing factor, in the production of shock in the anesthetized dog. . . . Changes in muscle tension of anesthetized dogs were followed by means of an optically recording isometric muscle lever. Control experiments showed a progressive decline in tension which might be correlated with the initial tension applied