

Lack of effect of yeast RNA upon two types of conditioning

SIR,—We have already shown (Boissier, Simon, Tillement & Privat de Garilhe, 1965) that a ribonucleic acid (RNA) with well known physical and chemical properties* did not increase the acquisition or retention of a Mowrer-Miller type of conditioned reflex in rats. Cook, Davidson, Davis, Green & Fellows (1963) were able to show an increase in the rate of acquisition and a decrease in the rate of extinction of a pole climbing test by rats after chronic administration of RNA.

We have repeated our first experiment with a RNA of a different origin†. Three groups of 12 male rats weighing 110–130 g were used. The first group received 160 mg/kg (10 ml/kg) i.p. RNA 15 min before each of the daily trials. The second group were given the same treatment for 53 days before the experiment, and before each trial. The third, a control group, received saline in a similar manner. There were no significant differences between the performance of treated and control rats either after acute or chronic pretreatment.

The effect of this RNA was also studied on the rate of learning a maze which had red painted blind alleys and a correct path coloured green. This procedure enabled us to omit pretraining. The rats were deprived of water but not food, and drank only once each day in the goal box of the maze.

A group of 15 rats was given 50 mg/kg i.p. (10 ml/kg) RNA, 15 min before each trial but showed no increased rate of learning or running speed when compared to 15 controls injected with saline.

These results confirm our earlier observations and the more recent findings of Cohen & Barondes (1966).

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† Yeast RNA No. 2217 provided by Schwartz Fould Springer, Maisons-Alfort, France.