barbituric acid series. The criterion of narcosis was abolition of the righting reflex in female mice.

Racemic methylpentynol and its (+)-enantiomorph were administered orally to groups of thirty-five mice at two dose-levels (506 and 338 mgm./kgm.) and the two results were compared 1 hr. after dosage. *dl*-Methylpentynol showed sixteen and three animals narcotized compared with seventeen and three for (+)-methylpentynol on the two doses. A somewhat impure sample of (−)-methylpentynol showed a slight diminution in activity in a group of fifteen mice, which was not significant in view of the above result.

A contemplated extension of the work to certain optically active esters of methylpentynol was therefore abandoned.

It is of interest to note that the *dl*-hydrogen phthalate, prepared in the course of the above work, was completely without effect, presumably owing to the very slow rate of hydrolysis *in vivo*.

We wish to thank Mrs. I. M. Weaver for the biological work involved.

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Effects of Methylene Blue added to a Low Fat Diet in the Mouse

Dam and co-workers[1] have studied the effect of methylene blue added to various diets in the rat, and suggested that the drug can perform some of the functions of vitamin E. Dealing with young rats, they described an inhibition of growth; but no organ appeared to be especially affected.

We studied, in the mouse, the effect of the addition of methylene blue to a synthetic diet with a low fat content.

The composition of the diet was: complex-B free casein, 20 per cent; sucrose, 74·5 per cent; salt mixture, 5 per cent[2]; vitamins[3] and 0·5 per cent arachis oil. The α-tocopherol content was 150 mgm. per kgm. of diet. The methylene blue concentration was 0·126 per cent. The food was stored at 0° C.

The mice were from the colony at the Faculdade de Medicina de São Paulo. Both food and water were changed daily and given *ad libitum*. The animals were killed after 30 days. They were immediately dissected and the organs weighed on a torsion balance to the nearest 0·2 mgm. Groups of ten or more animals were used.

Table 1. Effect of Methylene Blue on the Body and Organ Weights of Adult Male and Female Mice

No. of animals in group			Body-weight	Spleen	Seminal vesicles	Testicles	Adrenals
Male	Control	10	29·5±0·6† (25·1)‡	260±22·0§	310±17·3	580±17·0	20±1·9
	Methylene blue	11	29·0±0·5 (23·5)	790±97·0	170±11·2	590±20·0	18±1·9
Female	Control	10	26·7±0·9 (20·6)	520±62·0	Uterus and ovaries 240±35·0		42±2·5
Female	Methylene blue	10	25·3±0·6 (13·5)	790±66·0	230±40·0		47±3·3

† Mean final weight in gm. ± S.E. of mean $\left(\sqrt{\frac{d^2}{n(n-1)}}\right)$

‡ Mean initial weight in gm.

§ Mean weight in mgm. per 100 gm. of body weight ± S.E. of mean.

Table 2. Effect of Methylene Blue on Body and Organ Weights of Male Mice with an Initial Weight of 14 gm.

No. of animals in group		Body-weight	Spleen	Seminal vesicles	Testicles
Control	10	26·2±0·8† (14·4‡	328±30·0§	271±15·0	606±15·0
Methylene blue	11	18·3±1·2 (14·0)	3,924±224·0	93±22·0	650±49·0

†, ‡, §, As in Table 1.

In both sexes the body-weight was not affected when the initial weight was about 20 gm., but the spleen became very heavy. This is more evident in the male, in which this organ is normally lighter than in the female (Table 1).

There was a reduction in the growth-rate of the males with an initial weight of 14 gm., but the effect of the drug on the spleen was the same (Table 2).

In the males of both groups there was a reduction in the weight of the seminal vesicles (Tables 1 and 2). It is obvious from the results of the heavier group that this effect is not related to any inhibition of growth.

These effects seem to be restricted to the mouse. We were unable to detect them in the rat or the guinea pig even though there is a distinct change in the colour of the spleen.

The animals were active and healthy during the experiment. There were no indications of infection due to the blockage of the spleen.

We have not studied systematically the vaginal smears of the female group.

In castrated male mice methylene blue does not change the effect of the testosterone propionate on the seminal vesicles. These results suggest further study of the action of the drug on the testicular and hypophyseal functions of the mouse before any definite conclusion can be reached.

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