for a pair from the same body, each piece being measured at two points.

The values for beef were :

Date	Fat	Muscle	Ratio
22.5.1951	0.000484	0.00057	1.18
28.5.1951	0.000495	0.00046	0.93
18.6.1951	0.000487	0.00097	2.0
Mean	0.000489	0.00067	

It seems legitimate to conclude from the above figures that fat is a better thermal insulator than muscle. The latter, however, is very variable when measured dead; the near-constancy of the figures for fat shows that the variations in those for muscle are due to the material and not the method. Preparations kept for a day or two at room temperature showed very slight change in the fat, but large changes in the muscle, usually an increase. The discrepancy between the results of Bordier and Hardy and Soderstrom with beef tissue is thus easily explained. The agreement with the latter's figures for fat is very close.

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¹ Bordier, H., *Arch. Physiol.*, (5), 10, 17 (1898).

² Hardy, J. D., and Soderstrom, G. F., *J. Nutr.*, 16, 494 (1938).

³ Hatfield, H. S., and Wilkins, F. J., *J. Sci. Instr.*, 27, 1 (1950).
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Electric Shock and the Regeneration of the Corneal Epithelium of Rabbits

It was considered of interest to discover the effect of electric shock on epithelial regeneration, since there are indications that mitotic activity is profoundly affected in shock conditions¹. In order to obtain quantitative information, artificially produced lesions of the corneal epithelium of rabbits were regarded as a suitable object. With the aid of Nižetić's corneal trepan and a small lancet, practically identical lesions were made in each cornea. Each of them had a diameter of 4.5 mm. and for convenience was dyed with uranin (1 per cent); thus it was easy to measure two diameters at right angles to each other. There were two groups, each consisting of four animals, and both eyes of each animal were operated on. One group of animals was stressed by electrical injury three times a day during observation, by applying alternating current of 50 c./s. and 45 V. for one second. Convulsions lasted for nearly 60 sec., unconsciousness up to 180 sec. Except during the convulsions, the sensitiveness of the cornea was normal. The other group served as a control. To obtain information as to the speed of regeneration, the extent of the two diameters of each lesion was measured with a circle every three hours during the day-time.

Beginning from the eighteenth hour after the operation, the difference between the two groups of animals became significant. The accompanying graph constructed from the average means, including standard errors, against time, shows the diminution of the diameters of the lesions in the two groups of rabbits. It is evident that the regeneration of the epithelium of the shocked animals is inhibited in comparison with the regeneration of controls. The complete regeneration of the shocked animals was

Diameters of the corneal lesions. (1) Control group; (2) shocked group

retarded by more than half a day, that is to say, by about 25 per cent of the normal period. Comparing both curves of the graph, a linear function may be possible in either case, especially when we take into account the existence of an initial lag due to the cocainization of the eye.

As to the cause of inhibition of regeneration, there are indications that sugar metabolism is affected; but other disturbances may also be involved.

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Vegetative Propagation from the Broccoli Curd after Suppression of Flowering

IN the course of an inspection of early varieties of autumn cauliflower and broccoli grown for seed production in Cyprus during 1946, it was observed in certain crops that after the inflorescence had formed very few flower buds developed. Suppression of flower development also occurred in a seed crop in the Scilly Isles later that year, and in a glasshouse in Devon, where selected broccoli plants were being seeded.

Further observations were continued in the case of the glasshouse crop. These plants had been transplanted from the field when the curds were visible. The curds were broken up by the elongation of the inflorescence stalks, and flowers developed. On certain plants a few early flowers which had been