oxidation in yeast by dinitrophenols is another proof that the oxidizing mechanism may be similar to the cyclophorase system obtained from animal tissues.

Full experimental details will be published elsewhere.

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Effect of Insulin Hypoglycæmia on Brain Glutamate

It was shown by Quastel and Wheatley[1] that slices of brain tissue are able to oxidize l-glutamic acid in the absence of glucose. Recent experiments by Mayer-Gross and Walker[2] have shown that the injection of glutamic acid and other amino-acids relieves the hypoglycæmic coma produced by insulin—an effect which apparently does not depend entirely upon the associated rise in the blood-glucose level.

The following observations were made on the concentration of l-glutamic acid in the rat brain during insulin hypoglycæmia. Glutamic acid and glutamine in the brain were estimated by the microbiological method of Krebs[3], post-mortem changes being minimized by freezing with liquid air. Insulin hypoglycæmia produced a significant decrease in the level of l-glutamic acid in the brain, the extent of which depended upon the severity of the hypoglycæmia. In deep coma the level was 100 mgm. per cent compared with a control value of 148 $\pm$ 8 mgm. per cent. At the same time there appeared to be a slight rise in the level of glutamine in the brain.

Glucose has been shown to establish an accumulation of glutamic acid in brain cortex slices which have been suspended aerobically in a media containing l-glutamate[4]. It is also known that brain tissue *in vitro* is capable of oxidizing glutamic acid to α-ketoglutaric acid and ammonia[5], and that the former can then be further oxidized to carbon dioxide and water. The present observations suggest that in a hypoglycæmic emergency the brain is able to obtain energy by metabolizing its glutamic acid reserves.

The possibility that this may have physiological significance is suggested by the fact that l-glutamic acid is effective in preventing the loss of potassium ions from brain cortex slices[6], a phenomenon associated with the electrical activity of nervous tissue. Also, both potassium and glutamic acid are necessary for the correct functioning of choline acetylase[7].

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The Extinct Blue Buck of South Africa

Only two large mammals of South Africa have become extinct in the historical period, namely, the quagga and the blue buck. The blue buck (*Hippotragus leucophœus*) lived in the south-west part of Cape Colony, and is believed to have been exterminated about 1799. About half a dozen mounted specimens have been preserved, mostly rather bad, and perhaps about three more pairs of horns exist the determination of which is doubtful. No specimen of the skull is known to exist, except perhaps in some of the mounted specimens.

On recently visiting the Hunterian Museum (Zoological Section) at the University of Glasgow, I saw a specimen that at once struck me as probably the skull of the extinct blue buck. There is no history attached to the specimen; but it is believed to have belonged to the Hunterian Collection. As William Hunter died in 1783, the specimen could date back to about the middle of the eighteenth century. Of course, if we could be quite sure that the skull was in the Hunterian Collection before 1783, we could