from that of diphosphothiamine in the oxidative decarboxylation (phosphoroclastic reaction) of pyruvate by *Lb. delbruecki*[6]. In this connexion it is of interest to note that Chantrenne and Lipmann[7] demonstrated partial reactivation of an extract of *E. coli* treated with the anion exchange resin 'Dowex 1' by addition of coenzyme *A*, but hesitated to draw any firm conclusions.

On the other hand, our system differs from that studied by Ochoa *et al.*[8,9] and also prepared from *E. coli*, in which the major reaction in pyruvate oxidation does not appear to require coenzyme *A* (see the scheme presented by Ochoa, p. 74 of ref. 8).

From our results with *Cl. saccharobutyricum*, we postulate the existence of the system shown on p. 710. The absence of the condensing enzyme from this system would probably lead to an accumulation of acetylphosphate, a phenomenon which has, in fact, been observed with our extracts obtained under less rigorously controlled conditions of preparation[1].

This work will be published in detail elsewhere.

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Effect of Amellin in the Prevention of Fatty Infiltration in the Liver

Amellin, which has been found to have beneficial effects in clinical and experimental diabetes[1–3], has recently been observed by one of us (S. P.) in a preliminary investigation on the depancreatized dog to have the property of completely preventing the fatty degeneration of the liver. It was reported earlier by Nath and Brahmachari[4] that amellin (given orally) in the daily dose of 25 mgm. per kgm. can cause considerable desaturation of the liver fat, which according to Schoenheimer and Rittenberg[5] is an indication of increased fat metabolism. Nath and Chakrabarti[3] have also recorded the prevention of tumorous growth in the livers of the animals with acetoacetate-induced diabetes, by simultaneous injection of amellin in a dose of 10 mgm. per kgm. Studies were therefore undertaken to observe the lipotropic effect of amellin in experimental animals.

Montini and Pontremoli[6] have recently observed that, 48 hr. after partial hepatectomy of the rat, the remaining portion of the liver undergoes fatty degeneration with a very large increase in the percentage of fat. This technique was used in this investigation, and experiment was made with sixteen rats, each weighing about 200 gm. Ten animals were used for the experiment and six as control. Amellin was injected intraperitoneally for three consecutive days before partial hepatectomy and for two days more before killing. The results are shown in the accompanying table.

No. of animals	Treatment: Substance	Treatment: Period	Fat in liver just after partial hepatectomy (per cent)	Fat 48 hr. after partial hepatectomy (per cent)	Increase of fat (per cent)
6	nil	—	5·1 ±0·25	8·14±0·31	59·6
6	Amellin inject. (25 mgm./kgm.)	From 3 days before partial hepatectomy	4·91±0·15	4·94±0·14	0·6
4	Amellin inject. (10 mgm./kgm.)	,,	4·80±0·14	4·80±0·1	nil

It is thus evident from the results that amellin; which has recently been found to have a thio-methyl pentose as one of its constituents[7], is also lipotropic in nature.

Further investigations are in progress.

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Bacterial Arylsulphatase

When arylsulphatase (phenolsulphatase) acts on the salt of an arylsulphuric acid (for example, potassium phenylsulphate, $C_6H_5OSO_3K$), the substrate undergoes hydrolysis. If the phenolic compound liberated on hydrolysis can be converted to a coloured product, the reaction can be made the basis of a method of detecting the enzyme. Earlier workers, using monoarylsulphates prepared from various phenols as substrates for the detection of arylsulphatase, have shown that this enzyme occurs in plants and animals. Its occurrence in bacteria, however, had not been investigated until recently, when Barber, Brooksbank and Kuper[1] examined 160 strains of *Staphylococcus pyogenes* and 75 strains of coagulase-negative staphylococci for the presence of glucuronidase, phosphatase and arylsulphatase, using the monoglucuronide, diphosphate and disulphate of phenolphthalein as substrates. In only two strains of staphylococci was arylsulphatase detected, although the enzyme was found to be present in an aerobic sporing bacillus encountered as a contaminant and in a strain of *Salmonella paratyphi B*.

In the present investigation, a wide range of bacterial species has been examined for the presence of arylsulphatase, using potassium phenolphthalein disulphate as substrate. This compound has a number of advantages as a substrate; for example, it is stable under conditions used for sterilizing bacterio-