α-Aminoadipate has been found to accumulate in the latter group of mutants, but in an inverse relationship to the lysine concentration present in both the intracellular amino acid pool and the medium. As growth decreases the quantity of lysine initially added to the medium to support growth, the α-aminoadipate content in the pool rises. Similarly, if mycelium is starved, the lysine pool concentration is reduced, and the α-aminoadipate content rises. These findings show clearly that lysine end-product control decreased the availability of α-aminoadipate and explains the inhibition of penicillin production by lysine.

We are currently working with cell-free systems in an attempt to show whether this effect is enzyme repression or feedback inhibition.

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Phosphoglucose Isomerase Variation in Man

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A staining procedure for the specific detection of the enzyme phosphoglucose isomerase (PGI) after electrophoresis in starch gels was recently described, and inherited variations in the isoenzymes of PGI were reported in the mouse (Carter & Parr, 1967). We now report a similar type of variation in man.

Most human haemolysates, when subjected to electrophoresis in a phosphate buffer system at pH 7·4, or in tris at pH 8·0, gave a single major band migrating cathodically (called for the present the 'PGI-Usual' type). However, a random survey of 1292 patients and students, predominantly English, revealed four variant types of erythrocyte PGI, each showing three major bands but distinguishable from one another in mobility. Two ('PGI-Ducek' and 'PGI-Phillips') occurred in Englishwomen, one ('PGI-Ferguson') in an Englishman, and two examples of another variant ('PGI-Singh') occurred in a male Sikh student and in a Ceylonese woman.

We also subjected to electrophoresis 358 haemolysates from Asian Indians resident in London, of whom 294 were Sikhs. Three of these Sikhs (two females and one male) were found to be of 'PGI-Singh' type, and a single example of yet another triplet variant ('PGI-Rajan') was found in a Malayalee woman from Kerala State in Southern India.

In all five variant triplet patterns one of the major bands (either the most cathodic or the most anodic) was identical in electrophoretic mobility with the single major band of 'PGI-Usual' type. This sort of occurrence of triplet patterns in other situations, e.g. for mouse PGI (Carter & Parr, 1967) and for human phosphogluconate dehydrogenase (Carter, Fildes, Fitch & Parr, 1968) has been taken to indicate that the enzyme is at least dimeric in structure and autosomally linked, and the present evidence points to similar conclusions for human PGI.

The finding that one type of PGI variation occurs in Sikhs, with an incidence of something greater than one per cent, whereas other types of variation were detected in Londoners, and with a lower overall incidence, suggests that PGI variation is dependent on ethnic grouping, and provides another source of data that may be of value in the study of human anthropology.

Very recently, an independent report has appeared on PGI variation in man (Detter *et al.* 1968).

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The Effect of Actinomycin D and Cycloheximide on the Activation by Prolactin of Lipoprotein Lipase in the Mammary Gland

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The activity of the lipoprotein lipase of mammary gland increases markedly just before parturition (McBride & Korn, 1963; Robinson, 1963). The mechanism whereby these changes in enzyme activity are achieved is obviously of interest. The lactogenic hormone prolactin was used to investigate the relationship between lipoprotein lipase activity and lactogenesis.

Pseudopregnancy was induced in oestrus virgin rabbits by a single injection of 50 i.u. of chorionic gonadotrophin. Lactation was initiated by the intraductal injection of 50 μg./duct N.I.H.-P-S6 prolactin (Chadwick, 1962). Mammary tissue was