The roots, stems and leaves also possess a glucose-6-phosphate dehydrogenase which is active only with triphosphopyridine nucleotide. This activity is not affected by iodoacetamide or fluoride but is increased by cyanide. Triphosphopyridine nucleotide reduced by the glucose-6-phosphate dehydrogenase can be re-oxidized by the extracts of the leaf and stem with 3-phosphoglycerate in the presence of adenosine triphosphate.

Since the triosephosphate dehydrogenase requiring triphosphopyridine nucleotide was found only in parts of the plant containing chlorophyll, it is of interest to speculate that it participates only in photosynthesis, that is, in the conversion of phosphoglycerate to triosephosphate, whereas the other dehydrogenase is concerned in carbohydrate catabolism. The presence of a glucose-6-phosphate dehydrogenase indicates that plant tissue may degrade hexose by a mechanism similar to that of yeast[4] or animal tissue[5].

Full details of this investigation, which was carried out at Brookhaven National Laboratory under the auspices of the U.S. Atomic Energy Commission, will be published elsewhere.

I am indebted to Prof. E. Baer for a generous gift of the dioxane addition compound of *dl*-glyceraldehyde 1-bromide 3-phosphoric acid. I am also indebted to Dr. Ralph DeMoss for many helpful suggestions.

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Glycerol as a Nutritive for *Vibrio choleræ*

IT has been found that glycerol, incorporated in a medium suitable for growing *Vibrio cholerœ*, increases the number of organisms yielded. This effect of glycerol is strongly enhanced when phosphates are present as well. Glycerol, in a concentration of 2·2 per cent (corresponding to 1·5 ml. glycerol per 100 ml. medium), doubles the harvest obtained from a solid basal medium containing 1 per cent peptone and 0·5 per cent sodium chloride. Omitting the glycerol and adding phosphate (0·25 per cent disodium hydrogen phosphate) to the basal medium raises the crop only slightly.

A more than sevenfold yield, however, is due to the combined action of glycerol and phosphate in the concentrations stated above. This manifold improvement in growth is nearly the same for two different strains used in vaccine production, namely, Ogawa and Inaba.

It is intended to publish a fuller report of this work elsewhere.

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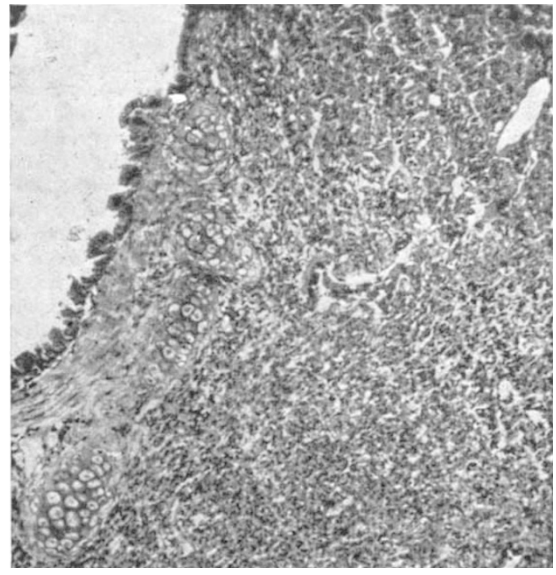
Lepine and Sautter's Disease in Great Britain

THE first guinea pig lung showing symptoms like that of the subclinical virus disease described by Lepine and Sautter[1] was found in Great Britain two years ago. Since that time, examination of guinea pigs from various sources has shown that this condition causing microscopical lung hepatization is widespread in Britain.

As in the cases of Lepine and Sautter, the animals exhibited no clinical symptoms. The only macroscopical change is that the lung is a lighter pink than usual; the hepatization of the lung can only be detected on microscopical examination, and is the sole means of identification.

Histopathological changes observed in the lung can be divided into two groups.

(1) *Peribronchial condensation in the lung.* This is characterized by proliferation and accumulation of a variety of cells, including fibroblasts, reticulocytes, developing cells of the lymphoid series, and a large number of small lymphocytes (see photograph). With reticulum staining, these areas show an abundance of reticular fibres.



Type 1 condensation (hæmatoxylin-eosin). × 100

(2) This type of condensation is characterized by a thickening of the alveolar wall due to cellular proliferation, involving particularly the capillary endothelium. No inclusion bodies could be detected in any of the condensations, either with neutral red (Duffet) or phloxyn-tartrazin (Lendrum) staining.

Since bacteriological examination was negative, it is logical to assume that the disease was caused by virus. I have been unable to determine whether this condition is identical with that described by Lepine and Sautter; nevertheless, the extent of distribution warrants a more extensive investigation.

My thanks are due to Mr. R. C. James for his technical assistance.

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