

ness and finally by the complete break-down of the grafts, while autodermic grafting later was entirely successful.

Tests in other cases were made by applying a single isograft alongside of autografts. In the cases thus far known to have at the time growing cancer, the isografts did not live. In other cases, we have not yet the final data. Histologic studies showed degeneration of the deeper cellular elements of the isografts. Nine cases were thus observed.

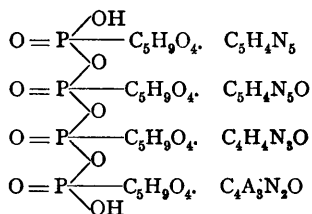
55 (465)

On yeast nucleic acid.

By **P. A. LEVENE** and **W. A. JACOBS.**

[From the Department of Chemistry of the Laboratories of the Rockefeller Institute for Medical Research.]

On hydrolysis of yeast nucleic acid the following components had been maintained: adenin, guanin, cytosin, uracil, dribose and phosphoric acid. On the basis of this knowledge and on the basis of the results of the elementary composition of the acid, the composition of the yeast nucleic acid was expressed schematically in the following manner:



That part of this assumption which tended to give expression to the manner in which the purin bases were linked in the molecule was confirmed by the finding of two ribosides, namely, guanosin and adenosin. However, there are known some properties of the nucleic acid which cannot be well interpreted by assuming for the pyrimidin bases the same manner of union as for the purin bases.

A new substance was obtained on hydrolysis of the yeast nucleic acid of the composition of $\text{C}_5\text{H}_9\text{O}_4\text{C}_4\text{H}_4\text{N}_3\text{O}$. On hydrolysis the substance yields cytosin, but no ribose. It contains in its molecule one free amino group and two hydroxyls. The following crystalline derivatives of the substance were obtained: picrate

sulphate, hydrochloride, tribenzoyl-derivative. The free substance and the salts are dextrorotatory. On the basis of this it is assumed that the new substance is a complex of cytosin and of a substance which is not a pentose. This necessitates the modification of that part of the formula of the yeast nucleic acid which gives expression to the form of the union of the pyrimidin bases in the molecule.

The new assumption is in harmony with all the properties of the nucleic acid ; it also is in harmony with the fact that on distillation of the nucleic acid with hydrochloric acid an amount of furfural was obtained which corresponded not to 44 per cent. of pentose (as the old formula requires) but to about 25 per cent., which is the required proportion by the modified formula.

56 (466)

The reaction of the uterine mucosa towards foreign bodies introduced into the uterine cavity.

By **LEO LOEB.**

[From the Laboratory of Experimental Pathology of the University of Pennsylvania.

I found that the introduction of foreign bodies into the uterine cavity approximately six days after ovulation leads to a rapid transformation of the whole uterine mucosa of the guinea-pig into a maternal placenta. Within 5 or 6 days an extraordinary increase in the size of the uterus takes place ; this is followed by a period in which the pressure upon the newly formed placental tissue enclosed within the uterine muscle wall becomes so great that autolysis sets in and within a few days most of the placental tissue has been transformed into a brownish fluid.

In these experiments no ovum had previously entered the uterine cavity, the Fallopian tubes having been ligatured very soon after copulation in each case. The introduction of small particles of paraffin, of a very thin glass rod, of the thinnest platinum wire will serve for this purpose ; since the latter, however, is only in partial contact with the uterine mucosa, it is not as effective as the glass rod or the paraffin. These foreign bodies do not act by separating the constituents of the uterine mucosa, that is, by