

In the fertilization of the ovum the centrosome plays an important part, but its action does not appear to be the same in all forms. In cases where a "quadrille of the centrosomes" occurs the centrosomes of the first segmentation asters are each due to the union of half of the sperm and half of the ovum centrosomes. In other cases the centrosomes of the first segmentation astro-spheres seem to owe their origin entirely to the sperm centrosome, while in still other forms which have been studied the ovum centrosome is alone responsible for the centrosomes of segmentation.

The number of observations on this stage of fertilization is still but few, and it is possible that when a larger number of forms have been thoroughly studied a greater similarity in the behavior of the sperm and ovum centrosomes will be discovered, or the reason for this diversity of action will be found. At present, however, the number of facts known form too small a basis on which to found general laws.

DR. HAROLD C. ERNST gave a

PRELIMINARY DESCRIPTION OF THE STAPHYLOCOCCUS AUREUS LIQUEFACIANS,

obtained from a fatal case of puerperal fever, and studied by Messrs. Flint, Howland and Frost — more especially in the later time by the former.

The peculiar characteristics of this bacterium are, that at first it was a streptococcus of very marked appearance — the individual cells being of the average size of the staphylococci, and the chains containing

from two to ten and sometimes more cells; but as the virulence has been increased by rapid passing through animals, the chain formation has gradually disappeared and the bacterium has looked more and more like a staphylococcus, until at the extreme degree of virulence now reached, that one-tenth of a centimetre of a bouillon culture injected subcutaneously kills a rabbit in from fifteen to twenty hours, the microscopic appearances are distinctly those of an ordinary staphylococcus. The chain formation makes its reappearance, however, after a few generations passed through fluid media, so that the alliance with the staphylococci is only temporary. The results produced in the animals are not in the least like those of the ordinary staphylococcus invasion, for at no time, with a comparatively weak or with the strongest cultures, has there ever appeared any sign of pus formation. The effects are due to a pure septicemia, with large numbers of the bacteria in the peritoneal fluid, the blood and scrapings from the various organs.

The other main characteristics of the bacterium are that it grows in the various nutrient media with the early appearance of fine white colonies like the ordinary streptococci, but that later these colonies take on a golden-yellow color; and that gelatine is liquefied slowly during the growth of cultures in it. This is a preliminary study of the bacterium in question; but if the results thus far obtained are verified, they are of great importance in connection with the production of a streptococcus antitoxine.