

to this intermediate group and has only been mentioned here for purposes of comparison with *B. Cholerae Suis*.

Intermediate between colon and typhoid but approaching more to the type of the Eberth's bacillus, are a number of little known and little studied forms of paratyphoid. The only organism which we have encountered which seems to belong to this group is one we have provisionally named Paracolon C. It was obtained from the liver of a healthy rabbit and is evidently allied more to typhoid than to colon, forming a faint growth on potato but not producing indol or a faecal odor, not coagulating or acidifying milk, nor fermenting the carbohydrates. It seems to be closely related to the form isolated by Flexner from cases of dysentery, in association with the *amœba coli*, agreeing with it in its fundamental characteristics. It, like Flexner's organism, should doubtless be classified as a para-typhoid. It corresponds, as far as can be told, with other varieties of intestinal bacteria described heretofore, especially the non-fermenting varieties of Widal and Gilbert.

The *B. Typhosus* stands next for purposes of comparison. This organism is too well known to need any further words, but its place in this chart is justified by reference to its invisible growth on potato, its failure to produce gas or to coagulate milk and its being non-pathogenic for mice under ordinary laboratory conditions.

The next organism in our series of paracolibacillary forms, which is named Paracolon D., provisionally, has been isolated in two instances, from the stomach of a healthy man in one case and, again, from a typhoid spleen. It is the furthest removed from both the colon and typhoid type and represents a variation from the colon in not fermenting any sugar, not producing nitrites, indol, or a faecal odor, in not growing on potato, not being pathogenic, and in liquifying gelatine. In morphology it is a fine short bacillus, barely distinguishable from a micrococcus and its especial characteristic is the growth on slightly alkaline agar as a faint film which after a lapse of 48 hours seems indistinguishable from the substratum of medium. While it may be identical with other intestinal bacteria described before, yet we have not come upon any similar organisms recorded in the literature and we are therefore inclined to look upon it as a new species. It has been named provisionally Paracolon D.

From the study of the organisms given in the chart, one is convinced that while a proper biological classification of bacteria is still as far as ever from attainment, yet much may be done by this graphic method in illustrating the relations which the different intestinal bacteria bear to each other. With one or two exceptions the bacteria described here are well known forms which have already been reported. By means of