BACTERIOLOGICAL NOMENCLATURE AND TAXONOMY

INDOL PRODUCTION OF BACTERIA

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W. Frieber (1) has published a list of conditions for indol production by bacteria. It seems desirable to point out that some of his postulates are untenable, as they are in conflict with the experience of many authors. Frieber states that anaerobes do not produce indol. It has been shown, however, by many authors that some anaerobic species are capable of producing indol. Thus a large number of strains of Fusobacterium (2,3,4,5), and of Sphaerophorus necrophorus (6) as well as strains of Bacteroides funduliformis (7), which may be identical with S. necrophorus, have been shown to produce indol. I have found strong indol reactions in cultures of Bacteroides melaninogenicus. It would not be reasonable to suggest that the work of the authors referred to - and of others who have obtained the same results - has not been carried out carefully enough to exclude the possibility of mistakes.

It may be mentioned that it has been claimed (5) that strains of Fusobacterium fail to reduce nitrates, and that their power of acidification of glucose is extremely slight - if any.

Frieber further states that capsule production and production of slime or slime-walls are unfavorable for indol production. Whereas it is true that many encapsulated or mucoid organisms are indol-negative, a considerable number of such strains do produce indol. Thus some encapsulated strains of Aerobacter aerogenes (or Klebsiella according to Kauffmann's terminology) produce indol, and there is no evidence of interference with indol production in mucoid or slime-wall colonies of Escherichia coli. Likewise there is, so far, no report that the encapsulated strains of Haemophilus influenzae differ from non-encapsulated strains in production of indol.

It seems probable that other exceptions to the postulates of

Frieber might be found.

References

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