THE IDENTIFICATION OF "STREPTOCOCCUS LACTIS R" AS A STRAIN OF STREPTOCOCCUS FAECALIS

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Since Mitchell, Snell, and Williams (J. Am. Chem. Soc., **63**, 284) used *Streptococcus lactis* R for the assay of folic acid, numerous workers on the assay of vitamins and amino acids have utilized this strain as a test organism. In the course of work in this laboratory, however, it became apparent that the culture is an enterococcus, specifically *Streptococcus faecalis*.

Three cultures, all of which were derived from the same original strain, have been studied. These include the original *Streptococcus lactis* R or Rgl-A, from the University of Wisconsin collection, and strains 8022 and 8043 from the American Type Culture Collection. All three conform to the criteria generally used for the identification of enterococci, namely, growth at 10 and 45 C, growth in media containing 6.5 per cent NaCl, reduction of litmus in skimmed milk before curdling, etc. Growth at 10 C and strong reducing power are shared with *Streptococcus lactis*, but growth at 45 C and in the presence of 6.5 per cent salt are indicative of an enterococcus. The cultures also reacted with Lancefield group D sera in precipitin tests, a reaction specific for enterococci. The inability to liquefy gelatin and the greening of blood agar serve to identify the culture, among the enterococci, as *Streptococcus faecalis*. Of the many minor characteristics determined, the "R" strain was atypical only in its inability to ferment mannitol, but such strains of *Streptococcus faecalis* are well known.

In other physiological studies, Gunsalus and Sherman (J. Bact., **45**, 155) found that *Streptococcus lactis* R, in common with other enterococci, fermented glycerol aerobically, whereas the *Streptococcus lactis* cultures tested did not possess this ability. Niven and Sherman, and Niven (J. Bact., **47**, 335, 343) have shown that the nutritive requirements of *Streptococcus lactis* are markedly different from those of the enterococci, and that the requirements of *Streptococcus lactis* R are in entire harmony with those of the enterococcus group. Furthermore, in studies on the function of pyridoxine, Gunsalus and Bellamy (J. Biol. Chem., **155**, 557) have reported that *Streptococcus lactis* R possesses a tyrosine decarboxylase system, a property characteristic of enterococci (Gale, Biochem. J., **34**, 846).

On the bases of physiological, nutritive, and serological characteristics, "*Streptococcus lactis* R" has been identified as an enterococcus, specifically *Streptococcus faecalis*.