

PROPOSED DESIGNATION OF A NEOTYPE STRAIN  
OF Pediococcus cerevisiae BALCKE

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**SUMMARY.** The authors propose to the Judicial Commission of the International Committee on Bacteriological Nomenclature that the strain deposited in the American Type Culture Collection as ATCC 8081 be designated as the neotype strain (culture) of Pediococcus cerevisiae Balcke.

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In previous publications (Günther and White, 1961a, 1961b) we have reviewed the history, taxonomic status and nomenclature of the bacterial genus Pediococcus and its several species. The first species of this genus described in the literature was Pediococcus cerevisiae Balcke, 1884. One species only was described and named: The generic and species names were validly published and legitimate. Pediococcus cerevisiae Balcke is thus the type species of the genus (monotypy). We have noted that no type strain (culture) has been selected and now propose that a neotype culture be designated and approved by the Judicial Commission.

**PROPOSAL.** The authors propose that Strain ATCC 8081 (American Type Culture Collection) be designated as the neotype strain (culture) of Pediococcus cerevisiae Balcke. This is the strain originally named Streptococcus citrovorus Hammer, 1920, later transferred to the genus Leuconostoc as Leuconostoc citrovorum (Hammer) Hucker and Pederson, 1930. Identity with Pediococcus cerevisiae Balcke was proposed by Felton and Niven, 1953.

Description of Strain ATCC 8081 Pediococcus cerevisiae Balcke, 1884. (Streptococcus citrovorus Hammer, 1920. Leuconostoc citrovorum (Hammer) Hucker and Pederson, 1930).

#### Morphology and Staining Reaction

Spherical organisms, occasionally ovoid, ranging in diameter from 0.71  $\mu$  to 1.23  $\mu$ , arranged in clusters, tetrads, pairs or singly, nonmotile, nonspore-forming and not encapsulated. Strongly Gram-positive.

#### Cultural Characters

Surface colonies on tomato juice (TJ) agar (Oxoid, adjusted to pH 6.6) are greyish-white, smooth, circular, low convex with entire margins, size varying between 0.5 and 1.2 mm in diameter. Growth in TJ agar stab culture is beaded throughout the entire length of the stab, with a small amount of surface growth. Mucoid colonies are not formed on TJ agar containing a final concentration of 5% sucrose. There is abundant growth in TJ broth after 24 hr incubation.

#### Growth Conditions

Facultative anaerobe. Optimum temperature 30° C. Growth at 10° C, 40° C and 45° C. Growth at pH 4.2, not at pH 9. Growth in the presence of 4% and 6.5% NaCl. Growth in the presence of 0.01%, 0.05% and 0.1% teepol. Growth in wort and hopped wort. No growth in beer (bottled Carlsberg Lager). Final pH in glucose Yeastrel broth 3.8. A specific requirement for leucovorin is exhibited.

#### Biochemical Characters

Catalase positive. No haemolysis on horse blood agar, only a zone of bleaching round greyish, pinpoint, translucent colonies. Aesculin hydrolysed. Gelatin not liquefied. No reduction of nitrate to nitrite or nitrogen gas. Produces ammonia from arginine. No growth observed in media containing ammonium salts as the sole nitrogen source. No production of carbon dioxide from glucose. Production of acetylmethylcarbinol from glucose and lactose. Optically inactive lactic acid produced from glucose. No acid or gas in litmus milk, no reduction. Acid from arabinose, glucose, maltose, trehalose and salicin. No acid from xylose, lactose, sucrose, raffinose, inulin, dextrin, glycerol, mannitol or sorbitol.

BACTERIOLOGICAL NOMENCLATURE  
AND TAXONOMYSerology

An antiserum may be prepared which will react with homologous and also with heterologous extracts of pediococci belonging to our physiological group I (P. cerevisiae) and some strains of group II (P. parvulus).

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