Corynebacterium minutissimum sp. nov., nom. rev.

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“*Corynebacterium minutissimum*” Sarkany, Taplin, and Black 1962 was not included on the Approved Lists of Bacterial Names and consequently has no standing in bacteriological nomenclature. However, the results of numerical taxonomic, cell wall, lipid, and deoxyribonucleic acid base composition studies indicate that the organism designated the type strain by Sarkany et al. (strain NCTC 10288) and other strains studied by these workers form a distinct taxon within the genus *Corynebacterium*. The name *Corynebacterium minutissimum* is here revived for the same organism to which the name was applied by Sarkany et al. The type strain is strain NCTC 10288.

The name “*Corynebacterium minutissimum*” was proposed by Sarkany et al. (8) for the causative agent of erythrasma in humans (7–9). However, this name was omitted from the Approved Lists of Bacterial Names (10) and therefore lost standing in bacterial nomenclature. This is unfortunate because numerical taxonomic and chemical studies (1–6) have indicated that “*C. minutissimum*” NCTC 10288^T (T = type strain), NCTC 10284, and NCTC 10285 comprise a distinct species in the genus *Corynebacterium*. Therefore, we revive the name *Corynebacterium minutissimum* and provide a complete description of this organism.

Description of *Corynebacterium minutissimum* sp. nov., nom. rev. The following description is based on a number of studies (1–9, 11) and our own observations on strains NCTC 10288^T, NCTC 10284, and NCTC 10285.

Surface colonies on blood agar are circular, about 1 mm in diameter, low convex with entire margins, and not pigmented; the surfaces are shiny and moist. When grown on certain rich media (e.g., media supplemented with 20% [vol/vol] fetal bovine serum), colonies show a coral red to orange fluorescence under Wood light (365 nm). Gram strains of exponential-phase cultures show straight to slightly curved rods which exhibit some pleomorphism. Cells occur singly or are arranged at right angles to give V formations; palisading occurs. The lengths of the rods range from 1 to 2 μ m, and the diameters range from 0.3 to 0.6 μ m. Nonmotile. No endospores are produced. Nonhemolytic. Optimum growth temperature, 35 to 37°C. Not heat resistant. Facultatively anaerobic. Catalase and cytochromes are produced. Acid without gas is produced from glucose, fructose, mannose, and maltose. Some strains (including strain NCTC

10288^T) produce acid from sucrose. No acid is produced from lactose, raffinose, or xylose. Methyl red and Voges-Proskauer negative. Indole is not produced. Sodium hippurate is hydrolyzed. Phosphatase and deoxyribonuclease are produced. Pyrazinamidase positive. Urease is not produced. Gelatin and casein are not hydrolyzed. Nitrate is not reduced.

The cell wall peptidoglycan contains meso-diaminopimelic acid; alanine and glutamic acid are also present. Arabinose and galactose are the wall sugars. Short-chain mycolic acids (28 to 36 carbon atoms) are present. Long-chain non-hydroxylated fatty acids are primarily of the straight-chain saturated, monounsaturated (oleic acid series), and 10-methyl branched types. Major cellular fatty acids are hexadecanoic, octadecenoic, and 10-methyl octadecanoic acids. Major menaquinone components are MK-9(H₂) and MK-8(H₂). The polar lipids are diphosphatidylglycerol, phosphatidylinositol, phosphatidylinositol dimannoside, and some glycolipids. The deoxyribonucleic acid base composition ranges 56 to 58 mol% guanine plus cytosine, as determined by the thermal denaturation method (NCTC 10288^T, 58.0 mol%; NCTC 10284, 57.5 mol%; NCTC 10285, 56.4 mol%). The type strain is strain NCTC 10288.

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