OBJECTION: CORYNEBACTERIUM ACNES IS NOT THE
SOLE LEGITIMATE ANAEROBIC SPECIES OF
CORYNEBACTERIUM

W. E. C. Moore, Lillian V. Holdeman and Cecil S. Cummins*

Department of Veterinary Science
Virginia Agricultural Experiment Station
Blacksburg, Virginia

It has recently been proposed (Zierdt et al., Intl. J. Syst. Bacteriol. 18:33-47, 1968) that ATCC 6919, NCTC 737 be considered the neotype strain of Corynebacterium acnes. In such a proposal it is desirable to indicate the character or variation that may be accepted within the species. The paragraph in which the proposal is made makes an unclear and inaccurate assumption as follows: "Aside from consideration of the evidence presented that C. acnes is the only legitimate species of anaerobic Corynebacterium, it is proposed that C. acnes ATCC 6919, NCTC 737, the Ponsonby strain, isolated by A. E. Hayden from facial acne, be considered the neotype strain for the species." This statement obviously implies that all anaerobic corynebacteria are C. acnes. We challenge this statement and believe that the proposal is invalid on this basis alone. Although it is not clear in the body of the proposal, the abstract, on the basis of examination of a single labeled strain of each, states that C. liquefaciens, C. granulosum, C. pyogenes, C. parvum, C. diphteroides (sic) and C. anaerobium are to be synonymous, and this would require that ATCC 6919 represent all of them. We believe that distinct species of anaerobic corynebacterium other than C. acnes exist and that C. acnes ATCC 6919 cannot represent them all as a neotype. C. pyogenes, a catalase negative facultative aerobe, is certainly distinct. It is unfortunate that Prévot strain 637B was used to represent C. pyogenes, for we have found that this strain is at variance with the description of that species.

We further suggest that serological differences and phage specificity do not constitute characteristics that are valid for genus or family separation of closely related species

* Professor of Bacteriology, Assoc. Professor of Bacteriology, and Professor of Bacteriology, respectively.

that have similar cell wall composition and metabolic pathways.