COMPARISON OF SURFACE HYDROPHOBICITY OF PILIATED AND NON-PILIATED CLONES OF *CORYNEBACTERIUM RENALE* AND *CORYNEBACTERIUM PILOSUM* AND DNA HOMOLOGY STUDY OF PROBABLE NEW SPECIES OF GENUS *CORYNEBACTERIUM* ISOLATED FROM THE URINARY TRACT OI HOGS

Hiroya ITO

Department of Hygiene and Microblology
Faculty of Veterinary Medicine
Hokkaido University, Sapporo 060, Japan

Piliated (P^+) and non-piliated (P^-) clonse of *Corynebacterium renale* and *C. pilosum* were similar in hydrophobicity as measured by hydrophobic interaction chromatography, bacterial adherence to hydrocarbons and the salt aggregation test. Therefore, the presiously reported adherence of P^+ clone to various cells, which is more effective than that of P^- clone of these bacteria, may be uncorrelated with the degree of hydrophobicity of both clones of these bacteria. Hydrophobicity of P^+ and P^- clones of these bacteria was found to be high when measured by hydrophobic interaction chromatography and bacterial adherence to hydrocarbons but low when measured by the salt aggregation test.

The DNA relatedness of two strains, 5-R14 and 68–29, of a probable new species of genus *Corynebacterium isolated from the urinary tract of hogs, to other known species of genus Corynebacterium,* which are parasitic on or pathogenic to humans and other animals, was assessed by analysis of DNA-DNA bomo- and hetro-duplexes with the endonuclease S1. The two strains showed 0% DNA relatedness to other known species genus *Corynebacterium.* Level of DNA relatendess between strains 5-R14 and 68–29 was low (20 and 37%). The data obtained indicated that the two strains of swine origin may be new species of genus *Corynebacterirum.*