Proposal of strain NCIMB 13488 as neotype of *Halorubrum trapanicum*. Request for an Opinion

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In view of the fact that strain NRC 34021, the designated type strain of *Halorubrum trapanicum*, is no longer available, strain NCIMB 13488, derived from strain NRC 34021, is proposed as the neotype strain of *H. trapanicum*.

Keywords: *Halorubrum trapanicum*, neotype strain

Halobacterium trapanicum was first isolated by H. F. M. Petter from 'Trapani' salt from a cannery in Bergen, Norway (Petter, 1931). In the course of a recent rearrangement of the taxonomy of the *Halobacteriaceae* (McGenity & Grant, 1995), the species was classified in the newly created genus *Halorubrum* on the basis of 16S rRNA comparison, polar lipid composition and additional phenotypic properties. The new species *Halorubrum trapanicum* with NRC 34021 as type strain was validated in 1996 (Anonymous, 1996).

The proposed type strain NRC 34021 of *Halorubrum trapanicum* is no longer available, and therefore the present taxonomic status of the species is uncertain (Oren *et al.*, 1997). Its status was discussed in the open meeting of the International Committee on Systematic Bacteriology Subcommittee on the taxonomy of *Halobacteriaceae* in Jerusalem, Israel, 20 August 1996 (Oren & Ventosa, 1997). A detailed survey of all currently circulating strains showed that at least some may belong to different genera, including the genus *Halococcus* (see also the discussion by Tindall, 1992). Thus, strains NCIMB 767 and ATCC 43102 are cocci with identical phenotypic characteristics and polar lipid patterns that are typical for the genus *Halococcus*. It was noted that the only culture of the type strain may survive in the laboratory of W. D. Grant. The subcommittee recommended that this culture should be deposited in a culture collection without delay, and

that *Halorubrum* ('*Halobacterium*') *trapanicum* should be considered a species *incertae sedis* until the type strain becomes available once more and/or a comparative study of the existing strains is completed.

The surviving culture, derived from the type strain, and kept in the laboratory of W. D. Grant, has now been deposited in the National Collection of Industrial and Marine Bacteria (Aberdeen, UK) as strain NCIMB 13488. The properties of this culture generally agree with the original species description of *Halobacterium trapanicum* (Elazari-Volcani, 1957). We detected some acid formation (a decrease of 0.5 pH units or more in unbuffered medium containing 0.1 % yeast extract and 1 % of the substance tested) on glucose, mannose, galactose, fructose, maltose, sucrose, trehalose and glycerol. The same substrates also stimulated growth in a buffered medium. No acid formation or growth stimulation was observed on rhamnose, arabinose, sorbose, melezitose, ribose, xylose, lactose, raffinose, dextrin, inulin, starch, mannitol or salicin. The original species description (Elazari-Volcani, 1957) states that no acids are formed. This discrepancy is probably due to the higher buffer capacity of the medium used in the early studies (containing 1 % peptone) and the more sensitive detection of acid formation in our recent study, using a pH electrode.

In accordance with Rule 18c of the International Code of Nomenclature of Bacteria (Lapage *et al.*, 1992), we

propose strain NCIMB 13488 as the neotype strain of *Halorubrum trapanicum*, to become the established neotype 2 years after the date of its publication in the IJSB.

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