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The status of the genus *Pelczaria* (Poston 1994) and the species *Pelczaria aurantia* (Poston 1994). Request for an Opinion

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Based upon the results of another publication [P. Schumann *et al.* (2000). *Int J Syst Evol Microbiol* 50, 1421–1424) it is concluded that the culture *Pelczaria aurantia* ATCC 49321^T (= DSM 12801^T) currently being distributed does not conform to the description of the type strain of *Pelczaria aurantia* (Poston 1994) and the type species of the genus *Pelczaria* (Poston 1994). It is proposed that the Judicial Commission consider (1) that the organism currently deposited as ATCC 49321^T and DSM 12801^T be recognized as a member of the species *Kocuria rosea*; (2) that the organism deposited as ATCC 49321^T and DSM 12801^T as the type strain of the species does not represent a strain of the species *Pelczaria aurantia*; (3) to place the name *Pelczaria aurantia* (Poston 1994) on the list of rejected names if a suitable replacement strain, or a neotype, cannot be found within 2 years of publication of this Request (Rule 18c); (4) to place the genus name *Pelczaria* (Poston 1994) on the list of rejected names [c.f. Recommendation 20d (3)] if a suitable replacement type strain or a neotype for the type species of the genus *Pelczaria* (Poston 1994) cannot be found as outlined in (3).

Keywords: *Pelczaria aurantia*, *Kocuria rosea*, Request for an Opinion

In a previous article it has been shown that *Pelczaria aurantia* ATCC 49321^T (= DSM 12801^T) and the type strain of the species *Kocuria rosea* (basonym: *Micrococcus roseus*), DSM 20447^T, belong to the same species. Under normal circumstances application of the Rules of the Bacteriological Code (1990 Revision) (Lapage *et al.*, 1992) would mean that the two species should be united in one genus, and in the same species. This would mean that *Pelczaria aurantia* (Poston 1994) and *Kocuria rosea* [(Flügge 1886), Stackebrandt *et al.* 1995] are subjective synonyms. Both species are the type species of the respective genera, so that Rules 42 and 15 could be applied, which would make the senior subjective synonym for the unified genera *Pelczaria*, and *Pelczaria aurantia* would be the senior subjective synonym of the unified species.

However, we have presented evidence in a previous publication (Schumann *et al.*, 2000) which indicates that there are problems associated with the data which we have collected on *Pelczaria aurantia* (ATCC 49321^T = DSM 12801^T) and that published by Poston (1993). In particular:

(i) The DNA–DNA hybridization studies by Poston (1993) indicate that *Pelczaria aurantia* and *Kocuria rosea* (ATCC 186^T) are $<5\%$, whereas our data gives values of 87·1% between *Pelczaria aurantia* (ATCC 49321^T) and *Kocuria rosea* (DSM 20447^T).

(ii) The DNA–RNA hybridization study of Poston (1993) indicates that there was no significant hybridization between *Pelczaria aurantia* and *Kocuria rosea* (ATCC 186^T), or any of the other species tested. The homologous hybridization value of *Pelczaria aurantia* with itself was 100%, providing an internal control within the experiments. Our data indicates that the 16S rDNA sequences of *Pelczaria aurantia* (ATCC 49321^T = DSM 12801^T) and *Kocuria rosea* (DSM 20447^T) are identical, which would mean, by extrapolation, that the DNA–RNA hybridization values between *Pelczaria aurantia* and *Kocuria rosea* (ATCC 186^T) should be 100%, or close to 100%.

(iii) The cell wall composition reported for *Pelczaria aurantia* is Glu-Ser-His-Lys-Ala (1:1:1:1:8) (Poston, 1993), whereas our results indicate that the composition is Glu-Lys-Ala (1:1·5:3·4), typical for members of the species *Kocuria rosea*.

(iv) The phospholipid composition reported for *Pelczaria aurantia* is PG, PC, and PE (Poston, 1993),

whereas the lipid composition of *Pelczaria aurantia* ATCC 49321^T (= DSM 12801^T) and *Kocuria rosea* (DSM 20447^T), reported by Schumann *et al*. (2000), is identical and comprises PG, DPG, an unknown phospholipid and a glycolipid.

(v) The G+C content of the DNA for *Pelczaria aurantia*, given by Poston (1993), is 59 mol% (HPLC) and 60 mol% (T_m), whereas the data of Schumann *et al*. (2000) gives a value of 72 mol% (HPLC), which is within the range given for members of the species *Kocuria rosea*.

We have taken steps to check the identity of *Pelczaria aurantia* deposited in the ATCC under the number ATCC 49321^T (= DSM 12801^T), against a subculture of the strain held by the NIH, Bethesda, MA, USA, both obtained from the original depositor, and both of which are identical in our studies, but clearly different from the properties described by Poston (1993). Based on the data we have presented, we conclude that the organism currently deposited in the ATCC as ATCC 49321, in the DSMZ as DSM 12801, and that held by the NIH is, in fact, a member of the species *Kocuria rosea*. Furthermore, we conclude that the organism originally described by Poston (1993) as the type strain of the type species of *Pelczaria aurantia* was, based on the DNA–DNA hybridization data, DNA–RNA hybridization data, cell wall analysis, and polar lipid analysis, neither a member of the species *Kocuria rosea*, nor was it a member of the genus *Kocuria*. We, therefore, conclude that the culture currently being distributed does not conform to the description of the type strain of *Pelczaria aurantia* (Poston 1994) and type species of the genus *Pelczaria* (Poston 1994). Consequently we are referring this matter to the Judicial Commission (Rule 18g) and propose that the Judicial Commission consider the following course of action.

(1) The organism currently deposited as ATCC 49321^T and DSM 12801^T be considered to be members of the genus *Kocuria* (Stackebrandt *et al*. 1995), and should be recognized as a member of the species *Kocuria rosea* [(Flügge 1886) Stackebrandt *et al*. 1995].

(2) The data currently available for ATCC 49321^T and DSM 12801^T is significantly different from that published by Poston (1993). The circumscription of the genus *Pelczaria* (Poston 1994) and the species *Pelczaria aurantia* (Poston 1994) indicates that the organism deposited as ATCC 49321^T and DSM 12801^T, as the type strain of the species, does not represent a strain of the species *Pelczaria aurantia* (Poston 1994).

(3) Based on our findings a strain which conforms to the original description of the species *Pelczaria aurantia* (Poston 1994) is not currently available. The species is, therefore, not represented by a type strain which conforms to the circumscription of the taxon. We, therefore, propose that a search be made for a suitable replacement type strain, or a neotype should be designated according to Rule 18c. We suggest that if a suitable replacement strain, or a neotype, cannot be found within 2 years of publication of this Request, that the Judicial Commission place the name *Pelczaria aurantia* (Poston 1994) on the list of rejected names.

(4) The type species of the genus *Pelczaria* (Poston 1994) is *Pelczaria aurantia* (Poston 1994), which is currently not represented by a type strain which conforms to the circumscription of the species [c.f. Recommendation 20d (3)]. If a suitable replacement type strain or a neotype for the species cannot be found as outlined in (3), we suggest that, with the placement of the species name *Pelczaria aurantia* (Poston 1994) on the list of rejected names by the Judicial Commission, the Judicial Commission should also place the genus name *Pelczaria* (Poston 1994) on the list of rejected names.

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