Escherichiaceae nom. nov., a Name to Replace *Enterobacteriaceae*

Request for an Opinion

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The family name *Escherichiaceae* is proposed as a replacement for *Enterobacteriaceae*, a name which is not formed in accord with the rules of nomenclature.

The family name *Enterobacteriaceae* is not formed in accord with the rules of bacteriological nomenclature (6). According to Rule 9, the name of the family should be formed from the name of the type genus by adding the suffix *-aceae*. The name *Enterobacteriaceae* is a validly published name (4) with the type genus *Escherichia* Castellani and Chalmers 1919 (1), but under Rule 9 the family name should be *Escherichiaceae*. The reason for this anomalous situation is that the family name *Enterobacteriaceae* Rahn 1937 was conserved with the type genus *Escherichia* in Opinion 15 issued by the Judicial Commission of the International Committee on Bacteriological Nomenclature (3) in 1958 as a specific exception to Rule 9. Lapage requested a reversal of Opinion 15 when he proposed (5) that the Judicial Commission issue an Opinion changing the type genus of the family from *Escherichia* to *Enterobacter* Hormaeche and Edwards 1960 (2) and the family name from *Enterobacteriaceae* to *Enterobacteraceae*.

The Judicial Commission has recently concluded (4) that the family name *Enterobacteriaceae* Rahn 1937 is currently valid and should have been included on the Approved Lists of Bacterial Names (7). However, the problem of retaining a single exception to Rule 9 for merely historical reasons leads to the logical proposal of the correctly formed name *Escherichiaceae*. This name does not seem to have been previously published, so the name is here formally proposed and the Judicial Commission is requested to issue an Opinion in favor of the name *Escherichiaceae*.

Escherichiaceae nom. nov. (M.L. fem. n. *Escherichia*, type genus of the family; *-aceae* ending to denote a family; M.L. fem. pl. n. *Escherichiaceae* the *Escherichia* family). Small gram-negative rods with rounded ends; cells are motile and peritrichous but sometimes nonmotile. Not

sporeforming; not acid fast. Aerobic to facultatively anaerobic. Catalase positive, with the exception of one serotype of *Shigella dysenteriae*; oxidase negative; nitrates almost always reduced to nitrites. Cells grow on meat extract media; chemoorganotrophic; metabolism respiratory and fermentative. Acid and usually gas produced from glucose and other carbohydrates. The guanine-plus-cytosine content of the deoxyribonucleic acid is 39 to 59 mol%.

The type genus is *Escherichia* Castellani and Chalmers 1919, 941, with the type species *Escherichia coli* Castellani and Chalmers 1919, 941; both of these names appear on the Approved Lists (7).

REPRINT REQUESTS

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LITERATURE CITED

1. Castellani, A., and A. J. Chalmers. 1919. Manual of tropical medicine, 3rd ed. Williams Wood and Co., New York.
2. Hormaeche, E., and P. R. Edwards. 1960. A proposed genus *Enterobacter*. Int. Bull. Bacteriol. Nomencl. Taxon. 10:71-74.
3. Judicial Commission of the International Committee on Bacteriological Nomenclature. 1958. Conservation of the family name *Enterobacteriaceae*, of the name of the type genus, and designation of the type species. Int. Bull. Bacteriol. Nomencl. Taxon. 8:73-74.
4. Judicial Commission of the International Committee on Systematic Bacteriology. 1981. Present standing of the family name *Enterobacteriaceae* Rahn 1937. Int. J. Syst. Bacteriol. 31:104.
5. Lapage, S. P. 1979. Proposal of *Enterobacteraceae* nom. nov. as a substitute for the illegitimate but conserved name *Enterobacteriaceae* Rahn 1937. Request for an Opinion. Int. J. Syst. Bacteriol. 29:265-266.
6. Lapage, S. P., P. H. A. Sneath, E. F. Lessel, V. B. D. Skerman, H. P. R. Seeliger, and W. A. Clark (ed.). 1975. International code of nomenclature of bacteria. 1975 Revision. American Society for Microbiology, Washington, D.C.
7. Skerman, V. B. D., V. McGowan, and P. H. A. Sneath (ed.). 1980. Approved lists of bacterial names. Int. J. Syst. Bacteriol. 30:225-420.