

Opinion

The nomenclatural types of the orders *Acholeplasmatales*, *Halanaerobiales*, *Halobacteriales*, *Methanobacteriales*, *Methanococcales*, *Methanomicrobiales*, *Planctomycetales*, *Prochlorales*, *Sulfolobales*, *Thermococcales*, *Thermoproteales* and *Verrucomicrobiales* are the genera *Acholeplasma*, *Halanaerobium*, *Halobacterium*, *Methanobacterium*, *Methanococcus*, *Methanomicrobium*, *Planctomyces*, *Prochloron*, *Sulfolobus*, *Thermococcus*, *Thermoproteus* and *Verrucomicrobium*, respectively. Opinion 79

Judicial Commission of the International Committee on Systematics of Prokaryotes

Correspondence

Hans G. Trüper
trueper@uni-bonn.de

The Judicial Commission of the International Committee on Systematics of Prokaryotes has corrected the nomenclatural types of 12 orders: *Acholeplasmatales*, *Halanaerobiales*, *Halobacteriales*, *Methanobacteriales*, *Methanococcales*, *Methanomicrobiales*, *Planctomycetales*, *Prochlorales*, *Sulfolobales*, *Thermococcales*, *Thermoproteales* and *Verrucomicrobiales*.

In a Request for an Opinion, Euzéby & Tindall (2001) proposed that the Judicial Commission correct the nomenclatural types of certain orders, for which, in violation of Rules 15 and 21a of the Bacteriological Code (Lapage *et al.*, 1992), families instead of genera had been proposed as nomenclatural types.

The Judicial Commission decided in favour of this Request that the 12 orders in question have the following genera as nomenclatural types: order *Acholeplasmatales* Freundt *et al.* 1984, genus *Acholeplasma* Edward and Freundt 1970 (Approved Lists 1980) (Skerman *et al.*, 1980); *Halanaerobiales* Rainey and Zhilina 1995, *Halanaerobium* Zeikus *et al.* 1984; *Halobacteriales* Grant and Larsen 1989, *Halobacterium* Elazari-Volcani 1957 (Approved Lists 1980) (Skerman *et al.*, 1980); *Methanobacteriales* Balch and Wolfe 1981, *Methanobacterium* Kluyver and van Niel 1936 (Approved Lists 1980) (Skerman *et al.*, 1980); *Methanococcales* Balch and Wolfe 1981, *Methanococcus* Kluyver and van Niel 1936 emend. Barker 1936 (Approved Lists 1980) (Skerman *et al.*, 1980); *Methanomicrobiales* Balch and Wolfe 1981, *Methanomicrobium* Balch and Wolfe 1981; *Planctomycetales* Schlesner and

Stackebrandt 1987, *Planctomyces* Gimesi 1924 (Approved Lists 1980) (Skerman *et al.*, 1980); *Prochlorales* (ex Lewin 1977) Florenzano *et al.* 1986, *Prochloron* (ex Lewin 1977) Florenzano *et al.* 1986; *Sulfolobales* Stetter 1989, *Sulfolobus* Brock *et al.* 1972 (Approved Lists 1980) (Skerman *et al.*, 1980); *Thermococcales* Zillig *et al.* 1988, *Thermococcus* Zillig 1983; *Thermoproteales* Zillig and Stetter 1982, *Thermoproteus* Zillig and Stetter 1982; *Verrucomicrobiales* Ward-Rainey *et al.* 1996, *Verrucomicrobium* Schlesner 1988.

References

- Balch, W. E. & Wolfe, R. S. (1981). *Methanobacteriales* ord. nov., *Methanobacterium bryantii* sp. nov., *Methanobrevibacter* gen. nov., *Methanobrevibacter arboriphilicus* comb. nov., *Methanobrevibacter ruminantium* comb. nov., *Methanobrevibacter smithii* sp. nov., *Methanococcaceae* fam. nov., *Methanococcales* ord. nov., *Methanococcus voltae* sp. nov., *Methanomicrobiaceae* fam. nov., *Methanomicrobiales* ord. nov., *Methanomicrobium* gen. nov., *Methanomicrobium mobile* comb. nov. and *Methanosarcinaceae* fam. nov. In *Validation of the Publication of New Names and New Combinations Previously Effectively Published Outside the IJSB*, List no. 6. *Int J Syst Bacteriol* 31, 215–218.
- Euzéby, J. P. & Tindall, B. J. (2001). Nomenclatural type of orders: corrections necessary according to Rules 15 and 21a of the *Bacteriological Code* (1990 Revision), and designation of appropriate

nomenclatural types of classes and subclasses. Request for an Opinion. *Int J Syst Evol Microbiol* **51**, 725–727.

Florenzano, G., Balloni, W. & Materassi, R. (1986). Nomenclature of *Prochloron didemni* (Lewin 1977) sp. nov., nom. rev., *Prochloron* (Lewin 1976) gen. nov., nom. rev., *Prochloraceae* fam. nov., *Prochlorales* ord. nov., nom. rev. in the class *Photobacteria* Gibbons and Murray 1978. *Int J Syst Bacteriol* **36**, 351–353.

Freundt, E. A., Whitcomb, R. F., Barile, M. F., Razin, S. & Tully, J. G. (1984). Proposal for elevation of the family *Acholeplasmataceae* to ordinal rank: *Acholeplasmatales*. *Int J Syst Bacteriol* **34**, 346–349.

Grant, W. D. & Larsen, H. (1989). Group III. Extremely halophilic archaeobacteria. Order *Halobacteriales* ord. nov. In *Bergey's Manual of Systematic Bacteriology*, vol. 3, pp. 2216–2218. Edited by J. T. Staley, M. P. Bryant, N. Pfennig & J. G. Holt. Baltimore: Williams & Wilkins.

Lapage, S. P., Sneath, P. H. A., Lessel, E. F., Skerman, V. B. D., Seeliger, H. P. R. & Clark, W. A. (editors) (1992). *International Code of Nomenclature of Bacteria (1990 Revision)*. *Bacteriological Code*. Washington, DC: American Society for Microbiology.

Rainey, F. A. & Zhilina, T. N. (1995). *Haloanaerobiales* ord. nov. In *Validation of the Publication of New Names and New Combinations Previously Effectively Published Outside the IJSB*, List no. 55. *Int J Syst Bacteriol* **45**, 879–880.

Schlesner, H. (1988). *Verrucomicrobium* gen. nov. and *Verrucomicrobium spinosum* sp. nov. In *Validation of the Publication of New Names and New Combinations Previously Effectively Published Outside the IJSB*, List no. 25. *Int J Syst Bacteriol* **38**, 220–222.

Schlesner, H. & Stackebrandt, E. (1987). *Planctomycetaceae* fam. nov. and *Planctomycetales* ord. nov. In *Validation of the Publication of New Names and New Combinations Previously Effectively Published Outside the IJSB*, List no. 23. *Int J Syst Bacteriol* **37**, 179–180.

Skerman, V. B. D., McGowan, V. & Sneath, P. H. A. (1980). Approved lists of bacterial names. *Int J Syst Bacteriol* **30**, 225–420.

Stetter, K. O. (1989). *Sulfolobales* ord. nov. and *Sulfolobaceae* fam. nov. In *Validation of the Publication of New Names and New Combinations Previously Effectively Published Outside the IJSB*, List no. 31. *Int J Syst Bacteriol* **39**, 495–497.

Ward-Rainey, N., Rainey, F. A., Schlesner, H. & Stackebrandt, E. (1996). *Verrucomicrobiaceae* fam. nov. and *Verrucomicrobiales* ord. nov. In *Validation of the Publication of New Names and New Combinations Previously Effectively Published Outside the IJSB*, List no. 57. *Int J Syst Bacteriol* **46**, 625–626.

Zeikus, G., Hegge, P. W., Thompson, T. E., Phelps, T. J. & Langworthy, T. A. (1984). *Haloanaerobium* gen. nov. and *Haloanaerobium praevalens* sp. nov. In *Validation of the Publication of New Names and New Combinations Previously Effectively Published Outside the IJSB*, List no. 16. *Int J Syst Bacteriol* **34**, 503–504.

Zillig, W. (1983). *Thermococcus* gen. nov. and *Thermococcus celer* sp. nov. In *Validation of the Publication of New Names and New Combinations Previously Effectively Published Outside the IJSB*, List no. 11. *Int J Syst Bacteriol* **33**, 672–674.

Zillig, W. & Stetter, K. O. (1982). *Thermoproteaceae* fam. nov., *Thermoproteales* ord. nov., *Thermoproteus* gen. nov. and *Thermoproteus tenax* sp. nov. In *Validation of the Publication of New Names and New Combinations Previously Effectively Published Outside the IJSB*, List no. 8. *Int J Syst Bacteriol* **32**, 266–268.

Zillig, W., Holz, I., Klenk, H.-P., Trent, J., Wunderl, S., Janekovic, D., Imse, E. & Haas, B. (1988). *Thermococcaceae* fam. nov. and *Thermococcales* ord. nov. In *Validation of the Publication of New Names and New Combinations Previously Effectively Published Outside the IJSB*, List no. 24. *Int J Syst Bacteriol* **38**, 136–137.