

## Judicial Commission of the International Committee on Systematic Bacteriology

Minutes of the Meetings, 2 and 6 July 1994, Prague, Czech Republic

### Session 1.

**Minute 1. Call to order.** Session 1 was called to order by the Chairman, L. G. Wayne, at 9:15 a.m. on 2 July 1994. The meeting was held at the Postgraduate Medical and Pharmaceutical Institute, Prague, Czech Republic.

**Minute 2. Record of attendance.** Present were W. Frederiksen (Editorial Secretary), M. Goodfellow (Executive Secretary-Treasurer, International Committee on Systematic Bacteriology [ICSB]), P. A. D. Grimont, D. Jones, K. Komagata, R. G. E. Murray (Editor, International Journal of Systematic Bacteriology), H. Prauser, P. H. A. Sneath, E. Stackebrandt (Secretary for Subcommittees, ICSB), J. T. Staley, H. G. Trüper (Chairman, ICSB), and L. G. Wayne (Chairman, Judicial Commission). Absent were W. E. C. Moore, J. M. Young, R. M. Kroppenstedt, F. Portaels, and G. A. Zavarzin.

**Minute 3. Alternates.** Designated alternates for W. E. C. Moore and J. M. Young were L. G. Wayne and R. G. E. Murray, respectively. No alternates had been designated for the other absent members.

**Minute 4. The late V. B. D. Skerman.** The commission noted with sadness the death last year of V. B. D. Skerman. The commission wants to pay tribute to his great contributions to bacterial nomenclature and his pioneering work on the Approved Lists of Bacterial Names and the *Bacteriological Code*.

**Minute 5. Minutes of last meeting.** The minutes of the 1990 meeting held in Osaka, Japan, were accepted as published (Int. J. Syst. Bacteriol. 41:185–187, 1991) (moved by P. H. A. Sneath and seconded by R. G. E. Murray).

**Minute 6. Adoption of the agenda.** The agenda was adopted as circulated.

**Minute 7. Matters arising from the minutes of the 1990 meeting.** The proposal to make *Salmonella enterica* the type species of the genus *Salmonella* was again discussed. One problem with this proposal is that the causal agent of typhoid fever, the former *Salmonella typhi*, would become a serovar of *S. enterica* subsp. *choleraesuis*. The Subcommittee on the Taxonomy of *Enterobacteriaceae* should be contacted concerning the possibility of proposing the conservation of *S. typhi* as an exception to the rules, as has been done with *Yersinia pestis*.

**Minute 8. Action on published proposals to amend the Bacteriological Code.** H. G. Trüper had published a taxonomic note with the title "Names for the Higher Taxa and Their Impact on the Code of Nomenclature of Bacteria" (Int. J. Syst. Bacteriol. 44:368–369, 1994), in which he proposed that the first sentence of General Consideration 5 of the *Bacteriological Code* should be: "This Code of Nomenclature of Bacteria applies to all procaryotes, including Archaea and Bacteria." After deliberate discussion, the commission recommended to the ICSB that the first sentence of General Consideration 5 should be emended and supplemented as follows: "This Code of nomenclature applies to all procaryotes. The procaryotes include groups known by such names as Bacteria, Eubacteria, Archaea, Archaeobacteria, Cyanobacteria, and possibly others. The term bacteria, whenever used in this code and in these statutes, applies to all procaryotes." This recommendation was moved by R. G. E. Murray and seconded by H. G. Trüper. The proposal was approved with 10 votes for and no votes against. The proposal by H. G. Trüper to keep the term Eubacteria instead of the term Bacteria proposed by Woese et al. (Proc.

Natl. Acad. Sci. USA 87:4578–4579, 1990) was discussed, but no action was taken.

**Minute 9. Proposal for a new nomenclatural concept, Candidatus.** R. G. E. Murray and K. H. Schleifer had published a taxonomic note (Int. J. Syst. Bacteriol. 44:174–176, 1994) in which, among other things, they proposed the concept of a waiting position for putative taxa in a category called *Candidatus*, which would have indefinite rank. This concept is supposed to apply to putative taxa for which some information in addition to a nucleotide sequence is available; in addition, the organism is not cultivable at present, and a type cannot be designated and deposited in collections. The commission agreed that Rule 18 of the *Bacteriological Code* does not provide adequate regulation for such procaryotes. The commission recommended to the ICSB that a *Candidatus* list should be established in the International Journal of Systematic Bacteriology. The term should be restricted to situations where it is known that an organism exists and should not be used for pure sequences. Knowledge concerning the nearest neighbor is necessary. The Rules Revision Committee should consider an appendix covering this situation which would be included in a new edition of the *Bacteriological Code*. R. G. E. Murray and E. Stackebrandt agreed to prepare a taxonomic note that could appear in the January 1995 issue of the International Journal of Systematic Bacteriology to introduce the *Candidatus* concept.

**Minute 10. New edition of the Bacteriological Code.** The Commission acknowledged the major task undertaken by P. H. A. Sneath to prepare the 1990 revision of the *Bacteriological Code*, which was published in January 1992. P. H. A. Sneath's report included a number of suggestions for further consideration by the commission. These suggestions will be reviewed by the Rules Revision Committee for future action.

**Minute 11. Cyanobacteria and liaison with other codes.** P. H. A. Sneath and E. Stackebrandt had participated in a meeting on harmonization among codes of nomenclature, which was held in March 1994 at Egham, United Kingdom, and was sponsored by the International Union of Microbiological Societies, the International Union of Biological Societies, and the International Association for Plant Taxonomy. Botanists and zoologists are moving toward a new starting point for nomenclature, and they are planning to make it mandatory for new names to be registered. Blue-green algae (cyanobacteria) will probably be handled according to the *Bacteriological Code*. Prospects for a unified biological code of nomenclature are being actively pursued by the International Union of Biological Societies, and the ICSB will probably be asked to participate in meetings in time for the next International Congress of Systematic and Evolutionary Biology in Budapest, Hungary, in 1996.

**Minute 12. Recognized culture collections.** Rule 27 of the *Bacteriological Code* states that, "[i]t is recommended that the type of a species or subspecies be deposited in a recognized culture collection," and Recommendation 30a states that, "the type strain... should be deposited in at least one of the permanently established culture collections, from which it would be readily available." Whether this recommendation should be made a rule and which culture collections could be considered "permanent" and "recognized" were discussed.

The problem was raised that when a patent is pending, type strains are not readily available. This should be made quite clear when such new taxa are described. The commission considered it mandatory that such strains must be made available to the scientific community and that names should not be validated until the organisms are available to scientists, if not to industry. Such type strains could be marked with a "PP" symbol. R. G. E. Murray will write a taxonomic note explaining this situation and suggesting that the present Recommendation 30a should be made a rule. He also agreed to advise biology journal editors about the existence of the *Bacteriological Code*.

**Minute 13. Rules Revision Committee.** In view of questions and suggestions raised in connection with minutes 9, 10, and 12, a Rules Revision Committee was appointed; the members of this committee are M. Goodfellow, P. A. D. Grimont, D. Jones, P. H. A. Sneath, and L. G. Wayne.

**Minute 14. Notification lists, Index of Bacterial Names, and taxonomic notes.** The commission acknowledged that notification lists of names validated by original publication in the *International Journal of Systematic Bacteriology* had been established. Also, a new section called Taxonomic Notes had been initiated in the *International Journal of Systematic Bacteriology*. The latest version of the *Index of Bacterial Names*, edited by W. E. C. Moore and L. V. H. Moore, includes names published up to January 1992. Whether the American Type Culture Collection, Bergey's Manual Trust, or others should be asked to assume responsibility for future publication of the *Index of Bacterial Names* must be decided by the ICSB.

**Minute 15. Lists of orthographic variants.** It was indicated that the editor of *Bergey's Manual* might produce a list of orthographic variants that may cause confusion in the search for names of bacteria. Also, DSM-Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH, Braunschweig, Germany, produces a list of names and their orthographic variants.

**Minute 16. Opinions awarded.** Opinions 64, 65, 66, and 67 had been published since the 1990 meeting, and two requests for an opinion were denied (*Int. J. Syst. Bacteriol.* **44**:177-178, 1994).

**Minute 17. Request for opinion pending.** The proposal by Tanasupawat et al. (*Int. J. Syst. Bacteriol.* **43**:860-63, 1993) to conserve *Pediococcus acidilactici* and designate a new neotype strain was discussed; these authors felt that the present neotype strain (NCDO 1859) was badly chosen. The required 1 year for consideration of this proposal will be over in October 1994, after which a vote may be taken.

**Minute 18. Request for an opinion concerning the type species of the genus *Agrobacterium*.** Sawada et al. proposed (*Int. J. Syst. Bacteriol.* **43**:694-702, 1993) that the name *Agrobacterium*

*tumefaciens* should be rejected because it is a junior synonym of *Agrobacterium radiobacter*. In a letter to the editor (*Int. J. Syst. Bacteriol.* **44**:373-374, 1994), Bouzar reviewed the situation, noting that all prior commission actions had the effect of conserving *A. tumefaciens* as the type species of the genus *Agrobacterium*. In an author's reply, Oyaizu and Sawada agreed that *A. tumefaciens* should remain the type species of the genus *Agrobacterium*. The commission accepted Bouzar's position that *A. tumefaciens* is still the type species; no further action is needed.

**Minute 19. Structure and function of taxonomic subcommittees.** One goal of restructuring the subcommittees is reducing the number of subcommittees. A taxonomic note on the function of subcommittees would be helpful.

**Minute 20. Minimal standards.** W. Frederiksen had submitted a proposal to consider principles for description of new taxa to the ICSB and the Judicial Commission. His intention was to provide principles that could facilitate the job of the subcommittees in establishing minimal standards. W. Frederiksen promised to send a draft of a taxonomic note to commission members for comment before he sent it to the editor of the *International Journal of Systematic Bacteriology*.

**Minute 21. Adjournment.** Session 1 was adjourned at 4:15 p.m. on 2 July 1994.

## Session 2.

**Minute 22. Call to order.** Session 2 was called to order at 9:00 a.m. on 6 July 1994.

**Minute 23. Retirement of members.** The commission thanked the retiring 16th class of commissioners, K. Komagata, H. Prauser, P. H. A. Sneath, and J. T. Staley, for their service.

**Minute 24. Announcement of new commissioners appointed by the ICSB.** Members of the 19th class of commissioners had been elected by the ICSB. The new commission takes office after this meeting and consists of the following individuals: 17th class members P. A. D. Grimont, W. E. C. Moore (Vice-chairman), L. G. Wayne (Chairman), and J. M. Young; 18th class members D. Jones, R. M. Kroppenstedt, F. Portaels, and G. A. Zavarzin; and 19th class members R. R. Colwell, M. Goodfellow, H. Prauser, and J. T. Staley. The ex officio members are W. Frederiksen (Editorial Secretary, ICSB), D. Labeda (Executive Secretary-Treasurer, ICSB), E. Stackebrandt (Secretary for Subcommittees, ICSB; Editor, *International Journal of Systematic Bacteriology* [after 1 January 1995]), and H. G. Trüper (Chairman, ICSB).

**Minute 25. Adjournment.** Session 2 was adjourned at 10:00 on 6 July 1994.

Wilhelm Frederiksen, *Editorial Secretary*