

International Committee on Systematic Bacteriology Subcommittee on the Taxonomy of the Lactobacilli, Bifidobacteria, and Related Organisms

Minutes of the Meetings, 5 September 1986, Manchester, England

Closed Meeting

Minute 1. *Call to order and record of attendance.* The closed meeting was called to order at 9:15 a.m. by J. London (alternate for Chairperson M. Rogosa). Present were F. Gasser, A. Kagermeier, K. W. Knox, E. Lauer, J. London, T. Mitsuoka, L. V. H. Moore (alternate for W. E. C. Moore), G. Reuter, and M. E. Sharpe.

Minute 2. *Call for old business.* Based on a formal request from O. Kandler, submitted at the last meeting held in Boston, E. Lauer announced that the species *Bifidobacterium suis* and *Bifidobacterium infantis* are both closely related genetically to *Bifidobacterium longum* (E. Lauer and O. Kandler, *Syst. Appl. Microbiol.* 4:42-64, 1983). V. Scardovi reported the existence of "intermediates" of *B. longum* and *B. infantis* (P. H. A. Sneath, ed., *Bergey's manual of systematic bacteriology*, vol. 2., p. 1424, 1986). Therefore, *B. suis* and *B. infantis* should be considered as subspecies of *B. longum*. E. Lauer was asked to publish a note on the issue in the *International Journal of Systematic Bacteriology*. T. Mitsuoka confirmed that the original strain of *Bifidobacterium bifidum* of Tissier has been deposited at the American Type Culture Collection (ATCC) by W. E. C. Moore.

Minute 3. *Scope of subcommittee.* As was suggested at the meeting in Boston, Mass., permission was asked to include the genera *Aerococcus*, *Brochothrix*, and *Leuconostoc* into the purview of the subcommittee. The Secretary for Subcommittees, H. G. Trüper, agreed by correspondence that the three genera be dealt with by the subcommittee. However, D. Jones, Secretary of the Subcommittee on the Taxonomy of *Listeria* and *Related Organisms*, provided the information (by correspondence) that the genus *Brochothrix* has been included among the groups of the *Listeria* subcommittee on the basis of cytochrome composition, peptidoglycan, polar lipids, fatty acids, menaquinones and 16S rRNA oligonucleotide sequencing. At present, the following genera are officially included in the scope of the subcommittee: *Bifidobacterium*, *Lactobacillus*, *Pediococcus*, *Aerococcus*, and *Leuconostoc*. The two species *Lactobacillus xylosus* and *Lactobacillus hordniae* were transferred to the genus *Lactococcus* gen. nov. (K. H. Schleifer, J. Kraus, C. Dvorak, R. Kilpper-Bälz, M. D. Collins, and W. Fischer, *Syst. Appl. Microbiol.* 6:183-195, 1985). It was also pointed out that on the basis of new data obtained by actual sequencing of 16S rRNA some of the existing genera might have to be rearranged, and the assignment of *Bifidobacterium* to the *Actinomycetales* might have to be revised.

Minute 4. *Membership.* J. London announced that he and M. Rogosa wished to step down from their posts as Chairperson and Secretary, respectively. M. Rogosa nominated (by correspondence) T. Mitsuoka as Chairperson; the nomination was seconded by M. E. Sharpe. A. Kagermeier was nominated as Recording Secretary by M. Rogosa (by correspondence), and the nomination was seconded by K. W. Knox. The votes were unanimous. M. E. Sharpe offered her resignation from the subcommittee. It was accepted only

with reluctance, and she was asked to become an ex officio member.

Minute 5. *Election of new members.* Four microbiologists were invited to serve on the subcommittee. Wilhelm Holzapfel (University of Pretoria, Pretoria, South Africa) was nominated by G. Reuter and seconded by J. London. Todd Klaenhammer (University of North Carolina, Raleigh) was nominated by J. London and seconded by G. Reuter. B. Gordon Shaw (AFRC Institute of Food Research, Bristol, United Kingdom) was nominated by G. Reuter and seconded by M. E. Sharpe. Barbara Sgorbati (Istituto di Microbiologia Agraria, Bologna, Italy) was nominated by M. E. Sharpe and seconded by E. Lauer. The election of all nominees was unanimous. T. Klaenhammer later declined the invitation. In his place F. Dellaglio (Istituto di Microbiologia, Piacenza, Italy), who had been elected at an earlier meeting, was asked to activate his membership.

Minute 6. *New business.* F. Gasser requested minimal standards for the genus *Brochothrix*. J. London asked on behalf of M. Rogosa for comments on the new *Bergey's Manual of Systematic Bacteriology*, vol. 2 (Williams & Wilkins Co., Baltimore, 1986). It was decided to withhold the discussion until all members have received a copy. All comments shall be directed to the Secretary. The species *Lactobacillus animalis* (V. E. Dent and R. A. D. Williams, *Zentralbl. Bakteriol. Microbiol. Hyg. I Abt. Orig. Reihe C* 3:377-386, 1982; V. E. Dent and R. A. D. Williams, *Int. J. Syst. Bacteriol.* 36:481-482, 1986) is included in *Bergey's Manual* (vol. 2., p. 1224, 1986.) as separate species; however, its relationship to *Lactobacillus murinus* remains unclear. T. Mitsuoka volunteered to perform DNA-DNA homology studies. *Lactobacillus bavaricus* (H. Stetter and K. O. Stetter, *Zentralbl. Bakteriol. Mikrobiol. Hyg. I Abt. Orig. Reihe C* 1:70-74, 1980) comprises strains of the two species *Lactobacillus sake* and *Lactobacillus curvatus*; E. Lauer and A. Kagermeier were charged to publish a note in the *International Journal of Systematic Bacteriology* to repeal the existence of *L. bavaricus*. G. Reuter reported that *Lactobacillus brevis* subsp. *lindneri* from sourdough (Spicher) was identical with *Bactobacillus sanfrancisco* (N. Weiss and U. Schillinger, *Syst. Appl. Microbiol.* 5:230-232, 1984). L. V. H. Moore and N. Weiss were asked to state the relationship of *Lactobacillus bifermentans* (O. Kandler, U. Schillinger, and N. Weiss, *Syst. Appl. Microbiol.* 4:408-412, 1983) to the genus *Eubacterium*. The species *Lactobacillus lindneri* might be revived for strains isolated from spoiled beer. The taxonomic status of strains of *Lactobacillus fermentum*, isolated from the gastrointestinal tract, was discussed.

Minute 7. *Acceptance of new species.* The following species were accepted as valid by the subcommittee: *Lactobacillus aviarius* (T. Fujisawa, S. Shirasaka, J. Watanabe, and T. Mitsuoka, *Syst. Appl. Microbiol.* 5:414-420, 1984); *Lactobacillus carnis* (B. G. Shaw and C. D. Harding, *Syst. Appl. Microbiol.* 6:291-297, 1985); *Bifidobacterium gallicum* (E. Lauer, submitted for publication); *Bifido-*

bacterium gallinarum (J. Watanabe, Y. Benno, and T. Mitsuoka, Int. J. Syst. Bacteriol. **33**:127-132, 1983).

Minute 8. *Adjournment.* The closed meeting was adjourned at 10:50 a.m.

Open Meeting

Minute 9. *Call to order and record of attendance.* The open meeting was called to order at 2:00 p.m. by J. London (alternate for Chairperson M. Rogosa). Present were F. Gaser, A. Kagermeier, K. W. Knox, E. Lauer, J. London, and M. E. Sharpe.

Minute 10. *Call for research reports.* Research reports were presented by F. Gasser, E. Lauer, and J. London. A brief discussion followed.

Minute 11. *Present membership.* The following individuals are members of the Subcommittee on Bifidobacteria, Lactobacilli, and Related Organisms: Franco Dellaglio,

Piacenza, Italy; Francis Gasser, Paris, France; Wilhelm Holzapfel, Pretoria, South Africa; Angelika Kagermeier (Secretary), Erlangen, Federal Republic of Germany (FRG); Otto Kandler, Muenchen, FRG; Dr. Kenneth W. Knox, Sydney, Australia; Dr. Eckhard Lauer, Berlin, FRG; Jack London, Bethesda, Md.; Tomotari Mitsuoka (Chairperson), Tokyo, Japan; Germain Mocquot, Jouy-en-Josas, France; W. E. C. Moore, Blacksburg, Va.; Gerhard Reuter, Berlin, FRG; Morrison Rogosa, Bethesda, Md.; Vittorio Scardovi, Bologna, Italy; Barbara Sgorbati, Bologna, Italy; M. Elisabeth Sharpe, Reading, United Kingdom (UK); B. Gordon Shaw, Bristol, UK; Peter H. A. Sneath (ex officio), Leicester, UK; Norbert Weiss, Freising, FRG.

Minute 12. *Adjournment.* The meeting was adjourned at 3:15 p.m. on 5 September.

Angelika Kagermeier, Secretary