Minutes

Paul N. Levett, *Secretary*
Lee Smythe, *Chairman*

International Committee on Systematics of Prokaryotes

Subcommittee on the taxonomy of *Leptospiraceae*

Minutes of the closed meeting, 18 September 2007, Quito, Ecuador

Minute 1. Call to order. The closed meeting was held at 17:20 on Tuesday 18 September 2007 at the Hotel Quito, Quito, Ecuador, in conjunction with the fifth meeting of the International Leptospirosis Society. The meeting was called to order by the Secretary, Paul Levett.

Minute 2. Record of attendance. The members present were Ben Adler, Rudy Hartskeerl and Paul Levett (Secretary). Roderick Chappel was in attendance as an observer.

Minute 3. Apologies for absence. Apologies were received from Lee Smythe (Chairman).

Minute 4. Minutes of the previous meeting. The minutes of the meeting held in Chiang Mai in 2005 had been published [Levett & Smythe, *Int J Syst Evol Microbiol* **56** (2006), 2019–2020].

Minute 5. Verification of culture collections. The subcommittee heard that the verification of strains held in culture collections has begun with collaboration between the reference laboratories in Amsterdam and Brisbane, and will continue.

Minute 6. Nomenclature of orthologous genes. No progress had been made on this subject. Ben Adler proposed that, as the number of available *Leptospira* genome sequences was likely to increase rapidly in the next few years, it was now impractical to attempt to standardize nomenclature and noted that this was not being done for other organisms. The subcommittee decided not to proceed further on this issue.

Minute 7. Proposals for changes in membership. Resignations had been received from Bill Ellis and Carole Bolin. The subcommittee recognized their contributions over several years. A decision was taken to invite Roderick Chappel and Richard Zuerner, who previously attended the subcommittee meeting as observers, to join the subcommittee as full members for the next meeting.

Minute 8. Recognition of new species. The subcommittee reviewed data from Lee Smythe regarding two new species. '*Leptospira kmetyi*' was isolated from soil in Malaysia. The type strain is Bejo-Iso9^T. '*Leptospira wolffii*' was isolated from humans in Thailand. The type strain is Korat-H2^T. In addition, Paul Levett had presented data at the meeting regarding the characterization of isolates from rats and

humans in Peru, for which the name '*Leptospira licerasiae*' was proposed. The type strain is VAR010^T. The subcommittee noted these species descriptions and awaited their valid publication.

Minute 9. Naming of *Leptospira* genomospecies 1, 3, 4 and 5. These hybridization groups were not named in the original publication by Brenner *et al.* [*Int J Syst Bacteriol* **49** (1999), 839–858]. The subcommittee considered that the genomospecies had become a source of confusion in the literature. In order to regularize their taxonomic status, the subcommittee proposed that genomospecies 1 should be named '*Leptospira alstonii*' (type strain 79601^T), genomospecies 3 should be named '*Leptospira vanthieli*' (type strain WaZ Holland^T), genomospecies 4 should be named '*Leptospira terpstrae*' (type strain H 2^T) and genomospecies 5 should be named '*Leptospira yanagawae*' (type strain Sao Paulo^T). A manuscript describing these species was prepared and has been submitted to IJSEM.

Minute 10. Recognition of new serovars. The subcommittee noted the publication of a new serovar description, *Leptospira kirschneri* serovar Sokoine (serogroup Icterohaemorrhagiae) from Tanzania [Mgode *et al.*, *Int J Syst Evol Microbiol* **56** (2006), 593–597]. A second new serovar, *Leptospira santarosai* serovar Arenal (serogroup Javanica), was presented by Rudy Hartskeerl. In addition, serovars of the newly described species '*L. kmetyi*', serovar Malaysia (serogroup Tarassovi), and '*L. wolffii*', serovar Korat (undesignated serogroup), were described in the descriptions of these species.

Minute 11. Revision of the book '*Classification of the Species Leptospira interrogans and History of its Serovars*' by Kmety & Dikken. This handbook is an essential reference to the pathogenic serovars, but was published 14 years ago and is now out of date. A revised and updated version is in preparation by Rudy Hartskeerl, which will be web-based.

Minute 12. Reference strain of *Leptospira borgpetersenii* serovar Hardjo subtype Hardjobovis. The subcommittee discussed the availability of strain 93U as described by Thiermann *et al.* [*Am J Vet Res* **47** (1986), 61–66]. This strain is not held in the collections of the WHO Collaborating Centres. The subcommittee agreed to the adoption of strain

Sponselee as the reference strain of *L. borgpetersenii* serovar Hardjo subtype Hardjobovis.

Minute 13. Subtypes of serovars. The subcommittee discussed the naming of serological subtypes. The subcommittee recognized the following subtypes (and reference strains) of serovars: serovar Lai type Langkawi strain Langkawi, serovar Grippityphosa type Moskva strain Moskva V, serovar Grippityphosa type Duyster strain Duyster.

Minute 14. Deposition of type strains in international culture collections. The ICSP requires that type strains of new taxa should be deposited in, and available from, at least two internationally recognized culture collections in two different countries. The subcommittee discussed the difficulty in finding culture collections that would accept leptospire (currently only the ATCC does so). The subcommittee recommends that type or reference strains of all new species or serovars be deposited with each of the three WHO Collaborating Centres (Amsterdam, Brisbane and Port Blair). The subcommittee agreed to communicate this to the ICSP and to the Editors of IJSEM.

Minute 15. Memoriam. The subcommittee noted with sadness the passing of Dr Aaron Alexander, who was a member of the subcommittee from 1962 to 1986 and served as its chair from 1982 to 1986. Dr Alexander will be remembered for his significant contributions to the study of *Leptospira*, including the first demonstration of genetic heterogeneity with the genus, leading to the current molecular system of taxonomy.

Minute 16. Current membership. The current membership of the subcommittee is as follows: Lee Smythe (Chairman), Brisbane, Queensland, Australia; Paul Levett (Secretary), Regina, Saskatchewan, Canada; Ben Adler, Melbourne, Victoria, Australia; Roderick Chappel, Fitzroy, Victoria, Australia; Rudy Hartskeerl, Amsterdam, the Netherlands; Richard Zuerner, Ames, IA, USA.

Minute 17. Date and venue of the next meeting. The next meeting will be held at the sixth meeting of the International Leptospirosis Society, to be held in 2009.

Minute 18. Adjournment. The meeting was adjourned at 19:00 on 18 September 2007.