

International Committee on Systematic Bacteriology

Subcommittee on the taxonomy of *Leptospiraceae*

Minutes of the closed meeting, Chiang Mai, Thailand, 12th and 13th November 2005

Minute 1. Call to order. The closed meeting was held at 3:45 pm on Saturday 12th November, 2005, at the Central Duangtawan Hotel, Chiang Mai, Thailand, in conjunction with the 4th meeting of the International Leptospirosis Society. The meeting was called to order by the Chairman, Lee Smythe.

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

Minute 3. Apologies for absence. Apologies were received from Carole Bolin and Bill Ellis.

Minute 4. Minutes of the previous meeting. The committee heard that minutes of the last two meetings, in Marysville, Australia (1999) and Bridgetown, Barbados (2002) were unavailable. Four committee members were in attendance at both meetings and at the present meeting. It was decided to proceed without minutes of the previous meetings. Only one decision was taken at the meetings in 1999 and 2002 (see Minute 6 below).

Minute 5. Proposals for changes in officers and membership. All members present recognized the relevance of the committee role and expressed an interest to continue and serve as members. The chairman agreed to contact those members absent from the meeting to confirm

their continuing interest in serving as members. The Chairman proposed that Paul Levett serve as secretary. It was decided that the membership of the committee would be reviewed at the next meeting. The Chairman proposed that criteria for membership should include being active in the field and having a number of relevant publications. Representatives from the major typing and reference collections should be on the committee. Observers would be invited to attend the meetings when their expertise would be useful to the committee.

Minute 6. Serovar nomenclature. At the meeting in Barbados, November 1999, it was decided to follow the nomenclature adopted for *Salmonella* serotypes. The committee's decision was made to reduce confusion created by different ways of writing serovar names. All serovar names should be written with an initial capital letter and should not be italicized. Moreover the committee reminded authors that it is incorrect to write the serovar name after *Leptospira*. An example of the correct nomenclature for a serovar would be *Leptospira interrogans* serovar Icterohaemorrhagiae.

Minute 7. Classification methods. The committee discussed the use of sequence-based versus DNA reassociation methods for species definition and identification. It was recognized that valid publication of a new species did not require approval of the committee. However, members felt strongly that the role of the committee lay in bringing order to serovar and serogroup classification and nomenclature. The committee agreed that new serovar isolates should be lodged with reference collections before they would be recognized. Members of the committee agreed to prepare a short paper summarizing the methods appropriate for definition and nomenclature of species, serovar and serogroup.

Minute 8. Integrity of culture collections. A number of strains are known to be mislabeled in some culture collections. Rudy Hartskeerl and Lee Smythe agreed to work towards validation of these strains held in the respective culture collections.

Minute 9. Adjournment. The meeting was adjourned at 4:55 pm, to allow members to attend another meeting. The sub committee meeting resumed again at 10:00 pm. on the same day. All members previously in attendance were present.

Minute 10. Recognition of new species. Paul Levett outlined the reason for renaming *Leptospira parva* as *Turneriella parva* (Levett et al. 2005). The decision had been taken at the TSC meeting in Osaka in 1990 to rename the organism *Turneria parva* (Marshall 1992). Kari Hovind-Hougen has since passed away and the species had become the subject of taxonomic confusion. In the CDC collection, Paul Levett found a second strain, S-308-81, which was originally isolated by Bill Ellis, but which had been lost from his collection in a freezer failure. Both strains were characterized and the original intent of the TSC had now been fulfilled. *Turneriella* was the closest legitimate genus name available.

Paul Levett then presented the data supporting the description of *Leptospira broomii* (in press IJSEM). Two reports of isolation of *Leptospira fainei* from human cases of leptospirosis in Europe were published (Petersen et al. 2001; Arzouni et al. 2002). PFGE data presented in the two papers showed that these isolates were not serovar Hurstbridge and when characterized further, they were shown by DNA-DNA hybridization to be a new species, probably with two

serovars. The species was named in honour of the late Dr. J. C. Broom, but the serovars have not been characterized serologically.

Minute 11. Recognition of new serovars. The committee noted the publication of two new serovar descriptions, both characterized by Rudy Hartskeerl at KIT. These are *L. interrogans* serovar Portblairi (Vijayachari et al. 2004) and *L. interrogans* serovar Buenos Aires (Rossetti et al. 2005). There was discussion about the conventions for naming of serovars, which will be outlined in the paper to be prepared by members (see Minute 7). Lee Smythe presented data describing the characterization of strain 94-79970/3, isolated in 1994 from bovine urine on a dairy farm on Atherton Tableland (near Topaz), Queensland, Australia. Strain 94-79970/3 represents a new serovar, Topaz, within the serogroup Tarassovi, and belongs to *L. weilii*. A second isolate, Rosa LT596, was later recovered from a human patient. The committee accepted the naming of serovar Topaz. Lee Smythe indicated that the data will be prepared for publication soon.

Minute 12. Adjournment. The meeting adjourned at 11:25 pm and was re-convened at 7:10 pm on Sunday 13th November, 2005. All members previously in attendance were present. Dieter Bulach and Rich Zuerner were invited to attend as observers.

Minute 13. Request for an opinion. In a Request for an Opinion to the Judicial Commission (Landon and Tang 2004), it is proposed that a correction be made in the Approved Lists of Bacterial Names to acknowledge ATCC 43642 as the type strain of *L. interrogans*. However, the committee noted that strain RGA was no longer the type strain of *L. interrogans*, having been

replaced by strain Ictero No. 1 (ATCC 43782). The Secretary will communicate this fact to the Judicial Commission.

Minute 14. Nomenclature of orthologous genes. Dieter Bulach outlined the potential for confusion if nomenclature of orthologous genes is not standardized, as the number of annotated *Leptospira* genomes increases. He proposed that the committee should assume the role of standardizing nomenclature. The Chairman asked Dieter Bulach to chair a working group on orthologous gene nomenclature to oversee this process.

Minute 15. Any other business. There was no other business.

Minute 16. Date and venue of the next meeting. The next meeting will be held at the 5th meeting of the International Leptospirosis Society, to be held in 2007.

Minute 17. Adjournment. The meeting was adjourned at 8:00 pm on 12th November, 2005.

Paul N. Levett, Secretary

Lee Smythe, Chairman

Arzouni, J. P., P. Parola, et al. (2002). Human infection caused by *Leptospira fainei*. *Emerging Infectious Diseases* **8**: 865-868.

Landon, S. and J. Tang (2004). Proposal to list ATCC 43642 as the type strain of *Leptospira interrogans* in the Approved Lists of Bacterial Names. Request for an opinion. *International Journal of Systematic and Evolutionary Microbiology* **54**.

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- Rossetti, C. A., M. Liem, et al. (2005). Buenos Aires, a new *Leptospira* serovar of serogroup Djasiman, isolated from an aborted dog fetus in Argentina. *Veterinary Microbiology* **107**: 241-248.
- Vijayachari, P., R. A. Hartskeerl, et al. (2004). A unique strain of *Leptospira* isolated from a patient with pulmonary haemorrhages in the Andaman Islands: a proposal of serovar portblairi of serogroup Sehgalii. *Epidemiology and Infection* **132**: 663-673.