Minutes

G. Balakrish Nair, *Secretary*
Barry Holmes, *Chairman*

International Committee on Systematics of Prokaryotes

Subcommittee on the taxonomy of *Vibrionaceae*

Minutes of the Meetings, 31 July 2002, Paris, France

Session 1. Closed meeting

Minute 1. Call to order. The closed meeting was held from 14:30 on 31 July 2002 in Room 339 M, level 31/2 of Le Palais des Congrès de Paris. The Chairman, B. Holmes, called the meeting to order.

Minute 2. Record of attendance. Those members present were B. Holmes, Y. Kosako, G. B. Nair and S. Shinoda. As prospective new members of the subcommittee, Geert Huys, Kumiko Kita-Tsukamoto, Henning Sørum and Antonio Ventosa were welcomed to the meeting as observers.

Minute 3. Apologies for absence. Apologies were received from M. Altwegg, R. R. Colwell, J. J. Farmer III, A. Huq, J. M. Janda, S. Joseph and A. Martin-Carnahan. No response was received from M. T. Kelly, J. V. Lee or R. Schubert. B. Holmes chaired the meeting and the Secretary, G. B. Nair, recorded the minutes.

Minute 4. Approval of agenda. A copy of the written agenda was circulated. No additional agenda items were proposed for discussion.

Minute 5. Minutes of the previous meeting. The minutes, then 'in press', of the previous meeting, which was held on 17 August 1999, in Sydney, Australia, had been approved. The minutes have since been published [*Int J Syst Evol Microbiol* 52 (2002), 2331–2333].

Minute 6. To receive proposals for changes in officers and membership. The membership of the subcommittee was reviewed. Martin Altwegg expressed his desire to retire from the subcommittee as his research subject area had changed. Likewise, Don Brenner, elected to membership in 1986 at the Manchester meeting, also expressed his wish to retire. All members present expressed their sincere appreciation for the contributions to the subcommittee made by M. Altwegg and D. J. Brenner. Since there had not been active participation from M. T. Kelly, J. V. Lee and R. Schubert, it was decided that B. Holmes would write to them and find out if they still maintained an interest to be active members of the subcommittee. G. Huys suggested that Fabiano Thompson from Brazil

and currently working in the Laboratory of Microbiology, Ghent University, Belgium would make a good member of the subcommittee in view of his substantial contribution to the taxonomy of vibrios based on AFLP analysis. Furthermore, K. Kita-Tsukamoto added that she would like F. Thompson and Tomoo Sawabe (Laboratory of Microbiology, Graduate School of Fisheries Sciences, Hokkaido, Japan) to become members of the *Vibrio* Working Group.

Technically, only members with voting rights should be present at a closed meeting. However, due to an error, several observers had been invited to the closed meeting. B. Holmes proposed that G. Huys, K. Kita-Tsukamoto (previously welcomed as an observer in the Sydney meeting and Chairperson of the *Vibrio* Working Group), H. Sørum, F. Thompson and A. Ventosa should be elected as members to the subcommittee subject to the agreement of the Secretary for Subcommittees (since given). Working group membership is a matter for the members of the respective working groups; there is no formal election procedure. All members present considered that B. Holmes and G. B. Nair should continue as Chairman and Secretary, respectively, of the subcommittee. Currently, R. Hugh is the only Honorary Life Member [it was noted that the collection of over 3000 strains of R. Hugh had still not been included in the Japan Collection of Microorganisms (JCM) as had been originally intended].

Minute 7. Tributes to Dr Riichi Sakazaki. A copy of the then 'in press' memoriam to Dr Sakazaki was distributed by Y. Kosako to all members present; this has since been published [*Int J Syst Evol Microbiol* 52 (2002), 1435]. A moment of silence was held in memory of Dr Sakazaki. The Eighth International Symposium on *Aeromonas–Plesiomonas* to be held on 10 September 2002 in Orihuela, Spain would be dedicated to his memory. A copy of the memoriam had been sent to the widow of Dr Sakazaki.

Minute 8. Method of voting. At some subcommittee meetings there have only been a handful of subcommittee members present, but still important issues were discussed and sometimes a formal vote was taken. J. J. Farmer III has proposed that the subcommittee formally change the way it votes on all matters and proposed that this can be done by email. Previously balloting on important decisions was done by regular mail. It was cumbersome, slow

and time-consuming. All future elections or issues that require a vote could be presented for discussion as emails and, after a given period of discussion, a final vote could be taken, with a fixed deadline for all replies. This alternative method should guarantee more discussions and a more informed and representative decision and would simply replace the 'mail ballot' that was typically used in the past for elections and important issues. The feasibility of email voting was discussed and it was proposed that an email be sent to all members to obtain their concurrence on this proposed method of voting. R. R. Colwell had already expressed her support for the proposal.

Minute 9. Change of the name of the subcommittee.

Aeromonas is now placed in a separate family, *Aeromonadaceae*, and it was felt that name of this family should be reflected in the name of the subcommittee. The issue was discussed at length and two options became evident. One was to split the current subcommittee into two, one for aeromonads and the other for vibrios, while the other option was that the current subcommittee name should be changed to include the *Aeromonadaceae*. B. Holmes opined that a split of the subcommittee was not a favourable option since the more you divide, the smaller number of people could be drawn upon for membership and the chances of small subcommittees surviving may be reduced. G. Huys opined that he nevertheless favoured a split of the subcommittee if the name of *Aeromonadaceae* was not included in the name of the subcommittee. Previously, J. J. Farmer III expressed the view that he was not in favour of a split and had suggested the name of the subcommittee be changed to 'Subcommittee on the Taxonomy of *Vibrionaceae* and Related Organisms (Véron 1965)', a definition that would also encompass the aeromonads and *Plesiomonas*. B. Holmes suggested an alternative name for a single subcommittee, 'Subcommittee for Taxonomy of *Aeromonadaceae*, *Vibrionaceae* and Related Organisms'. At the end of the discussions, there was no formal proposal to split the subcommittee, but a change in the name of the subcommittee was favoured. To ensure a democratic process, it was proposed that the Secretary should organize an email ballot of all members. They would vote as to whether there should be a division of the subcommittee into two, or if a single subcommittee was to continue, then which of the two new names suggested above should be adopted.

Minute 10. Minimal standards for description of new taxa.

No progress has been made over the years to formulate the minimal standards for description of new taxa of *Aeromonas*, *Vibrio* and related organisms. B. Holmes stated that a useful model to follow was that for the family *Flavobacteriaceae* [Bernardet *et al.*, *Int J Syst Evol Microbiol* **52** (2002), 1049–1070]. There was discussion on who could take up the task. G. Huys suggested that A. Martin-Carnahan should be requested to take up this task and he volunteered to assist her. The next issue was

should there be one minimal standard or two, one for *Aeromonas* and the other for vibrios and related organisms. K. Kita-Tsukamoto and Y. Kosako favoured the formulation of two minimal standards, while B. Holmes argued for one. He believed that if separate standards were prepared they would be practically identical and would involve unnecessary duplication of effort. It was finally decided that the chairpersons of the two working groups, along with others willing to assist them, should start this process and, depending on how it proceeds, it could be decided whether one minimal standard would suffice or whether two standards would be necessary. B. Holmes said that he would contact A. Martin-Carnahan and would attempt to initiate the process, since this is a long-pending agenda item and a beginning should be made. Such minimal standards were of critical importance to investigators who want to describe a new species and want to know the minimal set of criteria required for the description.

Minute 11. Progress report of the *Vibrio* Working Group.

K. Kita-Tsukamoto was proposed in Sydney in 1999 as the new chairperson of the working group. The current membership of this working group comprises R. R. Colwell, K. Kita-Tsukamoto (Chairperson), Y. Kosako, H. Sørum, F. Thompson and A. Ventosa. Among others, the working group will consider taxonomic questions raised by its members and also interpret sequencing data. The family *Vibrionaceae* currently has eight genera; namely, *Allomonas*, *Catenococcus*, *Enterovibrio*, *Grimontia*, *Listonella*, *Photobacterium*, *Salinivibrio* and *Vibrio* (see Bergey's Taxonomic Outline at <http://141.150.157.80/bergeysoutline/main.htm>). F. Thompson records that the genera *Allomonas* and *Enhydrobacter* had originally been tentatively ascribed to the family *Vibrionaceae* mainly on phenotypic characters, but that now *Allomonas enterica* is recognized as a later homotypic synonym of *Vibrio fluvialis*, whilst *Enhydrobacter aerosaccus* belongs to the genus *Moraxella*, having ~100% 16S rRNA similarity to *Moraxella osloensis*.

K. Kita-Tsukamoto has obtained reference strains from culture collections or from researchers who have proposed new species. Presently, strains of 45 species among the 53 species and four subspecies of the genus *Vibrio* and related genera (*Listonella* and *Photobacterium*) are available with K. Kita-Tsukamoto. K. Kita-Tsukamoto visited the Center of Marine Biotechnology (COMB), University of Maryland and The Institute for Genomic Research (TIGR), supported by UNESCO and TIGR, to discuss collaborative work with R. R. Colwell and J. F. Heidelberg. K. Kita-Tsukamoto further informed the members that, at present, 26 *gyrB* sequences of different *Vibrio* species have been determined and analysed, so now phylogenetic trees are being constructed to understand the relationships between genera and between species. G. Huys questioned whether the *gyrB* and 16S sequences had been compared between species and if there were variations between the discriminatory

ability of these two between and within species. This has not yet been done; furthermore, no efforts were currently being made to check phenotypic traits of the strains for which the *gyrB* and the 16S sequences were being determined. K. Kita-Tsukamoto also mentioned that a vast database of *gyrB* sequences does exist.

Minute 12. Preparation of a list of validly described taxa within the family *Vibrionaceae*. K. Kita-Tsukamoto presented a complete list of taxa described within the family *Vibrionaceae*. This list is available from the DSMZ (Deutsche Sammlung von Mikroorganismen und Zellkulturen, Braunschweig, Germany) website (<http://www.dsmz.de/bactnom/bactname.htm>). The taxa within the remit of the working group have since also been made available at the ICSP website <http://www.the-icsp.org/taxa/vibriolist.htm#vibrio>. K. Kita-Tsukamoto mentioned the anomaly of the species *Vibrio fischeri* (type strain, ATCC 7744^T) being listed in both the genus *Photobacterium* and *Vibrio*; they are homotypic synonyms. K. Kita-Tsukamoto also informed the group that the list of *Vibrio* species had been checked and invalid names excluded, with the exception of *V. fischeri*. G. Huys stated that the *Aeromonas* list drawn up by the DSMZ retains several invalid names for the same organism and this has resulted in great deal of confusion. A. Ventosa opined that information concerning the treatment of the family *Vibrionaceae* in the new edition of *Bergey's Manual* should be reviewed. He cited that the genus *Salinivibrio* with a single species, *Salinivibrio costicola*, was proposed by him, but he was surprised to see that *S. costicola* is also included as a species in the genus *Vibrio*.

Minute 13. Preparation of a list of 16S rRNA gene sequences available for members of the *Vibrionaceae*. A. Ventosa suggested that the list of validly described taxa within the family *Vibrionaceae* should be complemented by a list of available 16S rRNA gene sequences. This list should be edited by members of the *Vibrio* Working Group to indicate those sequences that correspond to the type strains and also list those sequences not recommended for use in phylogenetic studies. He considered such a list would help avoid many errors.

Minute 14. Classification of *Vibrio*. Y. Kosako wanted to know the exact premise that would define a genus. He stated that in other families there have been proposals to divide a genus, but he was unsure when such a division should be considered. B. Holmes asked whether there was any current proposal to divide the genus *Vibrio*. It was felt that this issue might become increasingly clear as minimal standards are drafted.

Minute 15. Instability of names. J. J. Farmer III had raised this agenda item again and wanted to know if the subcommittee had yet formed any view on proposals to 'correct' or change the spelling of names of the various genera and species, particularly within the family *Vibrionaceae*. G. Huys questioned the role of the Judicial

Commission in these matters. B. Holmes replied that the role of the Judicial Commission included adjudication as to determining the correct name under certain circumstances, but this was not one of them. B. Holmes further felt that the subcommittee could not develop a position at this time, but that the views of the wider membership should be sought in an effort to do so.

Minute 16. Any other business. The Eighth International Symposium on *Aeromonas-Plesiomonas* would be held two months later, in September 2002, and G. Huys wondered if the minutes of the Paris meeting would be available by then. B. Holmes stated that this was highly unlikely, but that G. Huys could present an abbreviated report of this meeting and especially to inform the members of the *Aeromonas* Working Group on the deliberations regarding minimal standards and the proposed changes to the name of the subcommittee.

Y. Kosako asked if when a new genus was included in a family, should the family description be emended? B. Holmes responded that would be the ideal course of action.

Eva Aldova, a member of the now-disbanded Working Group on Serotyping, had communicated with the Secretary stating that she has now officially retired. Her entire collection of reference and wild strains of *Plesiomonas shigelloides* of various origins has been deposited at the National Institute of Public Health, Prague. In addition, all the antisera used for serotyping of plesiomonads have been handed to Jozef Rosinsky, National Institute of Public Health, National Reference Laboratory for *Vibrionaceae*, I Medercka 39, SK 945 75, Slovak Republic.

Minute 17. Adjournment. The meeting was adjourned at 15:55 on 31 July 2002.

Session 2. Open meeting

Minute 18. Call to order and welcome by the Chairman. The open meeting was held from 16:00 on 31 July 2002 in Room 339 M, level 31/2 of Le Palais des Congrès de Paris. The Chairman, B. Holmes, called the meeting to order and welcomed all the members, observers and guests present.

Minute 19. Record of attendance. The subcommittee members present were B. Holmes, Y. Kosako, G. B. Nair and S. Shinoda. G. Huys, K. Kita-Tsukamoto, H. Sørum, F. Thompson and A. Ventosa were welcomed to the meeting as observers and new members. In addition, T. Sawabe (Laboratory of Microbiology, Graduate School of Fisheries Sciences, Hokkaido, Japan), Bruno Gomez-Gil (Bacteriology Laboratory, CIAD/Unit for Aquaculture, Mexico) and Gudni A. Alfredsson (Institute of Biology, University of Iceland, Iceland) attended as guests.

Minute 20. Chairman's report on membership and activities of the subcommittee since the last meeting

in Sydney, Australia, 1999. B. Holmes reported that efforts had been made to ensure continued activity by the subcommittee and to cater for those with an overall taxonomic interest in the group and those with more specialized interests in *Aeromonas* or *Vibrio* or related taxa. These goals had been achieved through the replacement of subcommittee members no longer active in the field with active researchers and by the re-invigoration of respective working groups on the taxonomy of *Aeromonas* and of *Vibrio*, particularly the latter. Although, regretfully, no report was available at this meeting on progress made by the *Aeromonas* Working Group, its members are active, having held a meeting in May 1999 [salient points reported in *Int J Syst Evol Microbiol* 52 (2002), 2331–2333], and were holding an International Symposium on *Aeromonas–Plesiomonas* on 10 September 2002 in Orihuela, Spain. It was hoped that a progress report and a report on the symposium would be available for the next meeting of the subcommittee. The taxa within the remit of the *Aeromonas* Working Group have also been made available at the ICSP website <http://www.the-icsp.org/taxa/vibriolist.htm#vibrio>.

Minute 21. Present status of *Vibrio* and related bacteria. There were now well-established working groups

addressing systematics issues within *Aeromonas* and *Vibrio*, and both had clearly defined taxa within their remit. It was noted, however, that with the winding-up of the Working Group on Serotyping there seemed to be none with special interest in genera such as *Plesiomonas*.

Minute 22. To receive correspondence and brief reports, comments or suggestions from those present concerning the taxonomy of aeromonads and/or vibrios and to consider proposals for future activities of the subcommittee or its working groups. Various issues were discussed, although all items received as correspondence had been raised at the closed meeting. With new active researchers recruited to the subcommittee, it was felt that the major issues would be largely addressed within the respective working groups.

Minute 23. Any other business. The next meeting of the subcommittee was planned to take place at the International Union of Microbiological Societies Congress to be held in San Francisco, CA, USA from 23 to 28 July 2005.

Minute 24. Adjournment. The meeting was adjourned at 17:05 on 31 July 2002.