International Committee on Systematic Bacteriology

Subcommittee on Taxonomy of Vibrios

Minutes of the Meeting, 22 July 1971

Food and Drug Administration Building, Washington, D.C.

Minute 1. Record of attendance. Members present were Rudolph Hugh, (Chairman), John C. Feeley (Secretary), Riichi Sakazaki, and Charles R. Manclark.

Minute 2. Resignation. A letter of resignation from Sachimohan Mukerjee was recived by the Secretary. The resignation was accepted, and thanks were expressed for his contributions to the subcommittee.

Minute 3. Approval of the agenda. The agenda was read and approved with modification.

Minute 4. Subcommittee activities. A report (1966-1970) of the Subcommittee on Taxonomy of Vibrios was presented to the Chairman, V. B. D. Skerman, and the Executive Secretary, W. A. Clark, of the International Committee on Nomenclature of Bacteria at the Xth International Congress for Microbiology, Mexico City, 9–15 August 1970 (5). For lack of travel funds, the subcommittee was unable to meet during the Congress.

Minute 5. List of approved bacterial names. The subcommittee noted the Proposal for a List of Approved Bacterial Names, Minute 17, of minutes of the meeting of the International Committee on Nomenclature of Bacteria, Xth International Congress for Microbiology (2).

Minute 6. Minimal number of characters for the identification of *Vibrio* species. Table 1 (6) was adopted as the minimal number of characters recommended for the identification of *Vibrio* species. In routine screening of field strains, arginine dihydrolase, ornithine decarboxylase, and guanine plus cytosine ratio may be omitted where substrates or equipment are not available.

Minute 7. Minimal number of characters for the identification of *Vibrio cholerae* and *Vibrio parahaemolyticus*. Tables 2 and 3 (6) were adopted as the minimal number of characters recommended for the identification of *Vibrio cholerae* and *Vibrio parahaemolyticus*. These two species have the characters of the genus *Vibrio* as defined in Table 1 (6).

Minute 8. Differentiation of *Vibrio cholerae*, *Aeromonas hydrophila*, and *Aeromonas shigelloides*. Table 4 (6) was recommended for the differentiation of *Vibrio cholerae*, *Aeromonas hydrophila*, and *Aeromonas shigelloides* (*Plesiomonas shigelloides*).

Minute 9. The subcommittee noted the contributions of Sakazaki, Tamura, and Murase (10) on the detection of hemolytic activity of *Vibrio cholerae*; of Sakazaki and Tamura (9) concerning serologic variants (Ogawa and Inaba) of *Vibrio cholerae* as O-forms of one serotype; and of Bhaskaran and Sinha (1) on conjugation of *Vibrio cholerae* and "non-cholera vibrio" hybrids.

Minute 10. Recommendation concerning certain vernacular terms. The terms "NAG vibrio" and "NAG *Vibrio cholerae*" should not be used in scientific literature (4 and 5). It is misleading to imply that these organisms fail to be agglutinated by specific antisera. Furthermore, the designation NAG vibrio often has been used for aeromonads and members of the family *Enterobacteriaceae* which fail to agglutinate in O group 1 antiserum.

Minute 11. Lack of type or neotype strains for *Vibrio* species. The subcommittee noted that type or neotype strains do not exist for the following *Vibrio* species and urged that they be designated in publication: *V. parahaemolyticus*, *V. alginolyticus*, *V. albensis*, *V. costicolus*, and *V. anguillarum*. Although strain EB 101 (ATCC 17802) was suggested as the type strain (7) for *Vibrio parahaemolyticus*, the strain number was mentioned neither by Fujino et al. (3) nor by Sakazaki, Iwanami, and Fukumi (8). Fujino deposited EB 101 in ATCC on 5 May 1965, but he did not designate it as a type or neotype strain. To establish EB 101 as the type strain for *Vibrio parahaemolyticus*, evidence is needed that the original description of the etiologic agent of shirasu food-poisoning is based on a study of EB 101. Although Miyamoto strain XII-53 (ATCC 17749) was suggested as the type strain (7) for *Vibrio alginolyticus*, it should be similarly verified and documented before the subcommittee recommends it as the type strain.

Minute 12. Election of new member. To strengthen expertise on bacterial species related to *Vibrio*, the subcommittee invited Ralph H. W. Schubert (Germany) to serve on the subcommittee. Subsequently the invitation was accepted. John C. Feeley and Charles R. Manclark indicated that their present positions precluded meaningful laboratory contributions to *Vibrio* taxonomy, but they agreed to continue their services pending reconstitution of the membership.

Minute 13. Election of officers. R. Hugh and J. C. Feeley were reelected Chairman and Secretary, respectively.

LITERATURE CITED

1. Bhaskaran, K., and V. B. Sinha. 1971. Hybridization in vibrios. *Ind. J. Exp. Biol.* 9:119-120.
2. Clark, W. A. 1971. International Committee on Nomenclature of Bacteria, Xth International Congress for Microbiology, Minutes of the Meeting, August 8 and 13, 1970. Hotel Maria Isabel,

- Mexico City, Mexico. Int. J. Syst. Bacteriol. 21:111-118.
3. Fujino, T., Y. Okuno, D. Nakada, A. Aoyama, K. Fukai, T. Mukai, and T. Ueho. 1953. On the bacteriological examination of shirasu-food poisoning. Med. J. Osaka Univ. 4:299-304.
 4. Hugh, R. 1965. Nomenclature and taxonomy of *Vibrio cholerae* Pacini 1854 and *Vibrio eltor* Pribram 1933, p. 1-4. Proceedings of the Cholera Research Symposium, U.S. Department of Health, Education, and Welfare, Public Health Service.
 5. Hugh, R., and J. C. Feeley. 1972. Report (1966-1970) of the Subcommittee on Taxonomy of Vibrios to the ICNB. Int. J. Syst. Bacteriol. 22:123.
 6. Hugh, R., and R. Sakazaki. 1972. Minimal number of characters for the identification of *Vibrio* species, *Vibrio cholerae*, and *Vibrio parahaemolyticus*. J. Conf. Public Health Lab. Directors 30:133-137.
 7. Sakazaki, R. 1968. Proposal of *Vibrio alginolyticus* for the biotype 2 of *Vibrio parahaemolyticus*. Jap. J. Med. Sci. Biol. 21:359-362.
 8. Sakazaki, R., S. Iwanami, and H. Fukumi. 1963. Studies on the enteropathogenic, facultatively halophilic bacteria, *Vibrio parahaemolyticus*. I. Morphological, cultural, and biochemical properties and its taxonomical position. Jap. J. Med. Sci. Biol. 16:161-188.
 9. Sakazaki, R., and K. Tamura. 1971. Somatic antigen variation in *Vibrio cholerae*. Jap. J. Med. Sci. Biol. 24:93-100.
 10. Sakazaki, R., K. Tamura, and M. Murase. 1971. Determination of the haemolytic activity of *Vibrio cholerae*. Jap. J. Med. Sci. Biol. 24:83-91.

R. Hugh, Chairman
J. C. Feeley, Secretary