International Committee on Systematic Bacteriology Subcommittee on the Taxonomy of *Pseudomonas* and Related Organisms

Minutes of the Meeting, 6 and 9 August 1982, Boston, Massachusetts

Session 1. Closed meeting

Minute 1. Call to order. The meeting was called to order by the Secretary, M. E. Rhodes-Roberts, in the absence of the Chairman, at 18:10 on 6 August 1982.

Minute 2. Record of attendance. Members present were M. E. Rhodes-Roberts (Secretary), M. Hendrie, M. Véron, and E. Yabuuchi. The Secretary-elect, T. Bergan, was present by invitation, and R. Hugh and Y. Terada attended as observers during the non-confidential parts of the meeting.

Minute 3. Minutes of the previous meeting. The minutes of the meeting in Munich on 3 and 5 September 1978 have been circulated to all members and have been published (Int. J. Syst. Bacteriol. 32:256-257, 1982). It was agreed that they were a correct record. Some minor matters arising from the minutes were discussed. Attention was drawn to the lack of official standing of the term "pathovar" in the Approved Lists of Bacterial Names (Int. J. Syst. Bact. 30:225-420, 1980). Thus, species names reflecting pathovars are not approved as such as sufficient for species names; this point is particularly relevant to phytopathogens.

Minute 4. Changes in membership and officers. The resignations of the Chairman, D. W. Dye, the Secretary, M. E. Rhodes-Roberts, and Subcommittee members G. L. Gilardi and M. Schroth were accepted with regret. J. De Ley (Ghent, Belgium) was nominated and seconded as Chairman, and T. Bergan (Oslo, Norway) was nominated and seconded as Secretary. These two candidates were unanimously elected to their respective offices. D. W. Dye (Auckland, New Zealand), D. C. Hildebrand (Berkeley, Calif.), and M. E. Rhodes-Roberts (Aberystwyth, Wales, United Kingdom) were also nominated and seconded for membership on the Subcommittee and were duly elected. M. Hendrie (Aberdeen, Scotland, United Kingdom), O. Lysenko (Prague, Czechoslovakia), M. Véron (Paris, France), and E. Yabuuchi (Gifu, Japan) had, before the meeting, confirmed their willingness to continue as active Subcommittee members, as did N. J. Palleroni (Nutley, N. J.) and R. H. W. Schubert (Frankfurt a.m., West Germany) during the meeting on 9 August. Because of his merits as the organizer and coordinator of the international collaborative study on serogrouping of *Pseudomonas aeruginosa*, the Subcommittee sincerely regrets that P. V. Liu is unable to continue because of other obligations.

Minute 5. *P. aeruginosa* serogrouping report. In the absence of P. V. Liu, the current situation with regard to the activities of the international collaborative study on *P. aeruginosa* serogrouping was described by M. E. Rhodes-Roberts. The chairman of the working party had prepared a lengthy report of the study and had distributed it to the members of the working group and to the Secretary of the Subcommittee. After comments from some of the co-workers, a shorter version was prepared, distributed to the most actively contributing members, and, after further minor revision, submitted for publication in the International Journal of Systematic Bacteriology. In a communication to the Secretary dated 25 June 1982, P. V. Liu reported that it was

his understanding that it would be published after changes following editorial suggestions.

As members of the working party, T. Bergan, M. Véron, and E. Yabuuchi commented on various aspects of the progress of the work and the report. Major cross-reactions have been identified, and equivalences between previous typing sets have been clearly listed. This has led to a considerable clarification of the formerly quite confusing situation. Further assessment of the nomenclature was suggested. It was agreed that after the report is published, comments of individual members or of the Subcommittee in toto could be expressed. T. Bergan, M. Véron, and E. Yabuuchi will present a memorandum for the consideration of the Subcommittee, which will subsequently evaluate the nomenclatural matter. After the general scientific community has had an opportunity to submit comments on the report, the Subcommittee should be in a position to reach a decision on the submitted recommendations. It was emphasized that the Subcommittee should continue to play an active administrative role in monitoring the nomenclature of the O-antigens of *P. aeruginosa*.

Minute 6. Minimal standards for the description of new bacterial taxa. The discussion indicated that there is still confusion regarding the request from the Judicial Commission for elaboration of minimal standards. One possibility is specification of the minimal criteria for valid allocation of a new strain to the genus *Pseudomonas* or related taxa. This should be accompanied by a brief description of related methods applicable to this group of organisms. Another alternative considered was the definition of species presently clearly within the genus *Pseudomonas* and related taxa. Members also briefly questioned whether the Judicial Commission had in mind a description of the minimal characteristics required for recognition of present species or future related species or both. It was agreed that clarification should be sought from the International Committee on Systematic Bacteriology (Chairman, P. H. A. Sneath), although minimal standards for other taxa published in the International Journal of Systematic Bacteriology indicate that the first alternative is the desirable approach.

The meeting was adjourned at 20:20, and it was decided to reconvene at 16:00 on 9 August, 1982 for continued discussions and to adhere to the previously published agenda of the open meeting of the Subcommittee.

Session 2. Open meeting

Minute 7. Call to order and record of attendance. The meeting was called to order by the Chairman, J. De Ley, as specified above. Attending this session were Subcommittee members M. S. Hendrie, D. C. Hildebrand, N. J. Palleroni, M. E. Rhodes-Roberts, R. H. W. Schubert, M. Véron, E. Yabuuchi, and the Secretary (T. Bergan). Also attending, as observers, were J. Gonzalez-Lopez, F. Megusar, A. Ramos-Cormenzana, J. Richard, and A. Ventosa. J. De Ley, on behalf of the Subcommittee, expressed particular gratitude to M. E. Rhodes-Roberts for her 16 years of distinguished service as Secretary of the Subcommittee.

Minute 8. Summary of the meeting on 6 August 1982.

M. E. Rhodes-Roberts gave a brief presentation of the business at the last Subcommittee meeting regarding membership, the Approved Lists, the serogrouping working party, and the request for opinions concerning minimal standards. With regard to the latter point, methods for collecting and comparing data on individual strains were discussed.

Minute 9. Agenda. The open meeting included (i) a paper presented by N. Palleroni regarding his chapter for the next edition of *Bergey's Manual*, (ii) a paper presented by E. Yabuuchi describing the characteristics of biochemically defective strains of pseudomonads from clinical specimens, and (iii) a paper presented by J. De Ley, who gave a general overview of the taxonomy of the pseudomonads and related organisms as indicated by his extensive deoxyribonucleic acid and ribosomal ribonucleic acid hybridization studies. Each presentation was followed by an extensive discussion.

The meeting was adjourned at 19:15 on 9 August.

The current members of the Subcommittee on the Taxonomy of *Pseudomonas* and Related Organisms are: Josef De Ley (Chairman), Laboratorium voor Microbiologie en Microbiele Genetica, Faculteit der Wetenschappen, Rijksuniversiteit, Ledeganstraat 35, 9000 Gent, Belgium; Tom Bergan (Secretary), Department of Microbiology, University of

Oslo, P.O. Box 1108 Blindern, Oslo, Norway; Douglas W. Dye, Plant Diseases Division, MARC, Private Bag, Auckland, New Zealand; Margaret S. Hendrie, Ministry of Agriculture, Fisheries and Food, Torry Research Station, P.O. Box 31, Aberdeen, AB9 8DG, United Kingdom; Donald C. Hildebrand, Department of Plant Pathology, University of California, Berkeley, Calif. 94720; Oleg Lysenko, Department of Insect Pathology, Institute of Entomology, CSAV, Flemingovo n. 2, Prague 6, Prague, Czechoslovakia; Norberto J. Palleroni, Department of Microbiology, Hoffmann-La Roche Inc., Nutley, N.J. 07110; Muriel E. Rhodes-Roberts, Department of Botany and Microbiology, School of Biological Sciences, The University College of Wales, Aberystwyth SY23 3DA, United Kingdom; R. H. W. Schubert, Zentrum der Hygiene, Abteilung für Allgemeine und Umwelthygiene, Universität Frankfurt, Paul-Erich-Strasse 40, 6000 Frankfurt aM, West Germany; Michel Véron, Faculté de Médecine Necker, Laboratoire de Bactériologie, 156 Rue de Vaugiraud, Paris, France; and Eiko Yabuuchi, Department of Microbiology, Gifu University School of Medicine, Tsukasa-Machi 40, Gifu 500, Japan.

TOM BERGAN, *Secretary*