REPORT OF THE SUBCOMMITTEE ON SULFATE-
REDUCING BACTERIA (1962 - 1966) TO THE
INTERNATIONAL COMMITTEE ON
NOMENCLATURE OF BACTERIA

This Subcommittee was formed in 1961 under the Chairmanship of Dr. J. C. Senez, with Professors L. L. Campbell, S. C. Rittenberg and R. L. Starkey as ordinary members and Professor J. R. Postgate as secretary.

The Subcommittee did not formally meet. It conducted its business by correspondence and, in particular, had the opportunity to comment upon and criticize proposals on the nomenclature of sulfate-reducing bacteria published, or about to be published, by Professors Campbell and Postgate. These publications were the responsibility of their authors, but the Subcommittee had them in mind in reaching the following conclusions:

1. Generic separation of the sporulating from the non-sporulating sulfate-reducing bacteria is justified. The identity of Clostridium nigrificans and the thermophilic sulfate-reducing bacteria is accepted, and so is the reclassification of Desulfovibrio orientis within the sporulating genus. A formal proposal has been made (Campbell and Postgate 1965, Bact. Rev. 29:359) to call this genus Desulfotomaculum; while recognizing the unfortunate polysyllabic character of that name, the Subcommittee agreed that it should be accepted until further revision proposed in section 6 is possible.

2. The nonsporulating sulfate-reducing bacteria should retain the generic name Desulfovibrio.

3. Work published since the formation of the Subcommittee, particularly that concerning DNA base composition, inhibitor resistance and flagellar morphology, has indicated certain complexities in the speciation within the genus Desulfovibrio that require further study. The Subcommittee recognized, therefore, that the proposals of Postgate and Campbell, dividing the genus into five groups, represent as good a working classification as any and recommended that they should be accepted until the further review recommended in section 6 is possible.

4. The Subcommittee accepted that Vibrio cholanicus is properly classified within the genus Desulfovibrio (Senez and Pascal 1961, Z. allg. Mikrobiol. 1:142; Baker, Papiska and Campbell 1962, J. Bact. 84:973).

5. The Subcommittee proposed that further discussion on the two species Desulfovibrio rubentschickii and Desulforistella hydrocarbonoblastica be withheld until authentic isolates are obtained and deposited in a permanently established culture collection.

6. The Subcommittee felt that, because of the rapid recent changes in the taxonomic position, there was a need for recently published work and proposals on nomenclature to be subject to the test of time. It recommended, therefore, that the Subcommittee on Sulfate-reducing Bacteria should be dissolved but that, in seven or ten years' time, the International Committee on Nomenclature of Bacteria should reappoint a subcommittee of specialists to report on and, if necessary, modify the nomenclatural position then obtaining.

This recommendation was accepted by the I. C. N. B. and the Subcommittee was dissolved. (Moscow, July 1966).

J. R. Postgate
Secretary