
ABSTRACT. An annotated list of 210 corrections and emendations relative to the location (in recognized culture collections) of type strains, neotype strains and reference strains of bacteria as proposed by Sneath and Skerman (1966, 1).

On examining the above paper a number of errors and omissions have been discovered. Many of these have arisen from the use of the first edition and appendix of the Catalogue of Strains of the National Collection of Industrial Bacteria rather than the second edition published at the end of 1964. A list of corrections is appended.

In addition, the following points should be noted.

1. Abbreviations: Additional to those given by Sneath and Skerman should be listed:
   - CDA - probably same as Canad. 201
   - CN - Burroughs Wellcome Research Laboratories, Beckenham, Kent, England, U.K.
   - HMS - Hopkins Marine Station, Pacific Grove, California, U.S.A. (Catalogue of Cultures, 1951)

The abbreviations to the names of Culture Collections are as follows:
   - ATCC - American Type Culture Collection, Rockville, Maryland 20852, U.S.A.
   - CCEB - Culture Collection of Entomogenous Bacteria, Institute of Entomology, Prague 6, Czechoslovakia
   - CCMDB - Microbial Culture Collection Department, Faculty of Natural Sciences, University of J.E. Purkyne, Brno, Czechoslovakia

National Collection of Industrial Bacteria and National Collection of Marine Bacteria. Torry Research Station, P.O. Box 31, 135 Abbey Road, Aberdeen, Scotland, U.K.
2. Status: From the introduction it is not clear exactly what is meant by the term "Authentic" in the table. When used in connection with holotypes it would seem superfluous. At other times it seems merely to emphasise "typical" etc., in the remarks column. If it indicates cultures checked for agreement with name and original description by the authors or others, it would be helpful if this were indicated.
3. *Bacillus*: In the annotations on *Bacillus*, references are made to "Aerobic Sporeforming Bacteria," U. S. Department of Agriculture Monograph No. 16, erroneously quoting this as "Aerobic Sporebearing Bacteria."

4. *Propionibacterium*: Sneath and Skerman do not regard van Niel's cultures as cotypes on the ground that these species were "founded" on recognizable varieties of earlier workers. If this interpretation is accepted, it would appear incorrect to cite *Lactobacillus brevis* ATCC 14869, *L. casei* ATCC 393, or *L. helveticus* Hansen Lh 12 as cotypes. Alternatively, it would seem a more logical extension of the type concept to regard van Niel's strains as cotypes for those species which he named and defined, even though his definitions may have embraced descriptions of previously described and recognisable strains. In this case *Rhodopseudomonas spheroides* ATCC 11167 should also be regarded as a cotype.

All references in the manuscript are to the pages where the taxon is named. The complete citations are included in the list of references.
1. **Acetobacter aceti** (Beijerinck 1898) Beijerinck 1900.
   - **Author's strain No.** L40. **Culture collection No.** NCIB 8621.
   - **Status:** no comment. **Annotation:** ADD: this strain (L40) is No. 4 from Collection 1, Delft. Frateur's monograph (1950, 313). According to Frateur "We can then conclude that Pasteur's *Mycoderma aceti* non mucous is the equivalent of Beijerinck's *A. aceti*. For this reason we must name this organism *A. aceti* (Pasteur) Beijerinck."

   - **Author's strain No.** None. **Culture collection Nos.** ATCC 12879, NCIB 889 **Status:** Holotype. **Annotation:** AMEND: Parsons to ATCC and NCIB. Holotype, Kozulis and Parsons (1958, 47-50).

3. **Acetobacter capsulatum** Shimwell 1936.
   - **Author's strain No.** None. **Culture collection Nos.** NCIB 4943, ATCC 11894 **Status:** Holotype. AMEND: Shimwell to NCTC 1936, to NCIB to ATCC. Holotype, Shimwell (1936, 585).

4. **Acetobacter mobilis** Tošić and Walker 1944.
   - **Author's strain No.** 20. **Culture collection Nos.** NCIB 6428, ATCC 12877 **Status:** Holotype. AMEND: Tošić to NCTC 1942, to NCIB. Tošić to ATCC. NCIB 6428 was designated as the type strain by Tošić (number 20 in his collection). Tošić and Walker (1944, 296).

5. AMEND: **Acetobacter suboxydans** Kluýver and de Leeuw 1924 (not 1923)
   - **Author's strain No.** None. **Culture collection No.** NCIB 9119. **Status:** Holotype. **Annotations:** Wikén to Carr to NCIB. Lineal descendant of the culture described by Kluýver and de Leeuw (1924, 170) and behaves in accordance with the original description. NCTC/NCIB 3734, sent direct to NCTC by Kluýver, has lost the property of converting glycerol to dihydroxyacetone, therefore NCIB 9119 is preferred. All genuine *Acetobacter suboxydans* are now classified by Shimwell and Carr (1959, 353) as *Acetomonas oxydans*.

6. **Acetobacter turbidans** Cosbie, Tošić and Walker 1942 (not 1941).
   - **Author's strain No.** 1. **Culture collection No.** NCIB 6249. **Status:** Holotype. **Annotations:** Walker to NCTC 1941, to NCIB. Cosbie, Tošić and Walker (1941, 382 and 1942, 82). This strain, No. 1 of Walker, was deposited in NCTC before publication of the second article and should rank as holotype. NCIB 6427 is then a paratype.

7. DELETE: **Acetobacter oxydans**
   REPLACE: **Acetomonas oxydans** (Henneberg 1897) Shimwell and Carr 1959.
   - **Author's strain No.** None. **Culture collection No.** NCIB 9013. **Status:** Proposed neotype. **Annotations:** Carr to NCIB. Proposed as neotype of *Acetomonas oxydans* not *Acetobacter oxydans* (Henneberg) Bergey et al. 1923; Shimwell and Carr (1959, 353). NCIB 9014 was also proposed as a neotype by these authors.
8. *Achromobacter aquamarinus* ZoBell and Upham 1944.
   Author's strain No. 558. Culture Collection Nos. ATCC 14400,
   NCMB 557. Status: No comment. Annotations: AMEND: ZoBell to
   ATCC and Shewan to NCMB.

   Author's strain No. None. Culture Collection Nos. ATCC 14780,
   NCIB 9657. Status: No comment. Annotations: AMEND: Groupe to
   Rutgers University to ATCC to NCIB.

10. DELETE: *Aerobacter aerogenes* (Kruse 1896) Beijerinck 1900.
    Author's strain No. None. Culture collection Nos. ATCC 10006,
    neotype of *Enterobacter aerogenes* Hormaeche and Edwards (1960,
    71), not of *Aerobacter aerogenes*.

11. DELETE: *Mr &e* (Jordan 1890) Bergey et al. 1923.
    Author's strain No. 279-56. Culture collection Nos. NCTC 10005,
    neotype of *Enterobacter cloacae* (Jordan 1890) Hormaeche and
    Edwards (1960, 71), not *Aerobacter cloacae*.

12. *Aeromonas hydrophila* (Chester 1901) Stanier 1943
    Author's strain No. P 2. Culture collection Nos. NCTC 7810,
    ATCC 9071, CCMDB 1242, NCMB 37, Canad 212, 494, CDC-RH 36,
    RH 252. Annotations: AMEND: Kulp to ATCC to NCTC to Shewan to
    NCMB. Status: No comment.

    Author's strain No. Kluver L 417. Culture collection Nos.
    NCMB 87, CDC-RH 47. Status: No comment. Annotations: AMEND:
    Kluver to Miles to Shewan to NCMB. This strain was
    isolated by von Wolffogen Kahr and named *Pseudomonas fermentans*
    (1932, 239) but was received by Miles and Miles from Kluver as
    *Aeromonas liquefaciens* (1951, 298). As Kluver and van Niel
    proposed the genus *Aeromonas* this culture is presumably authentic.

    Author's strain No. CDC-RH 39. Culture collection Nos. ATCC
    14174, CCMDB 1249, NCMB 833. Status: no comment. Annotations:
    AMEND: Snieszko to Ewing to ATCC and NCMB.

    Author's strain No. M 51. Culture collection Nos. ATCC 14029,
    CCMDB 1244, NCIB 9242, NCTC 10360; Private collection No.
    Hugh 798. Status: Holotype. Annotations: AMEND: Bader to
    Ewing to ATCC and NCIB. ADD: ATCC to NCTC.

    Author's strain No. A 1. Culture collection No. ATCC 4720, NCIB
    8150. Status: No comment. Annotations: AMEND: Baldwin to
    ATCC (in 1931) to NCIB.

    Author's strain No. A 9.2. Culture collection Nos. ATCC 13752,
    NCIB 9220. Status: Holotype. Annotations: AMEND: Starr to
    ATCC and Keddie to NCIB. Holotype, Kuhn and Starr (1960, 175).
    Starr and Kuhn (1960, 50) also refers.

    Author's strain No. None. Culture collection Nos. ATCC 11624,
    NCIB 8915, CDA 837. Status: Holotype. Annotations: AMEND:
    Sacks to ATCC and Lochhead to Landekin to NCIB.
   **Author's strain No.** 541. **Culture collection Nos.** ATCC 13347, NCIB 9222, CDA 859. **Status:** Holotype (not cotype). **Annotations:** AMEND: Lochhead to ATCC and Keddie to NCIB. Holotype, Lochhead (1958, 166).

20. **Arthrobacter flavescens** Lochhead 1958.  
   **Author's strain No.** 401. **Culture collection Nos.** ATCC 13348, NCIB 9221, CDA 860. **Status:** Holotype (not cotype). **Annotations:** AMEND: Lochhead to ATCC and Keddie to NCIB. Holotype, Lochhead (1958, 166).

   **Author's strain No.** None. **Culture collection Nos.** NCIB 8602, Canad-201, 425. **Status:** Cotype. **Annotations:** AMEND: Conn to Canad-201 as Conn's stock strain to NCIB. Used in several studies, biotin requiring. Conn has suggested ATCC 8010 as the type strain—see below.

22. **Arthrobacter globiformis** (Conn 1928) Conn and Dimmick 1947.  
   **Author's strain No.** None. **Culture collection Nos.** ATCC 8010, NCIB 8907. **Private collection No.** N. R. Smith 168. **Status:** Cotype. **Annotations:** Conn to Smith to ATCC to NCIB. Suggested type strain of Conn (ATCC Catalogue, 1964). Conn (1928, 3). Does not require biotin.

   **Author's strain No.** 94. **Culture collection Nos.** ATCC 15236, NCIB 9458, CDA 883. **Status:** No comment. **Annotations:** Amend: Giovannozzi-Sermanni to ATCC and Lochhead to NCIB.

24. **Arthrobacter pascens** Lochhead and Burton 1953.  
   **Author's strain No.** B 89. **Culture collection Nos.** ATCC 13346, NCIB 8910, CDA 858. **Status:** Holotype (not cotype). **Annotations:** AMEND: Lochhead to Landerkin to NCIB. Holotype, Lochhead and Burton (1953, 18).

   **Author's strain No.** 1 Gm 25. **Culture collection Nos.** ATCC 13727, NCIB 9066. **Status:** No comment. **Annotations:** AMEND: Jensen to ATCC and NCIB as type strain.

26. **Arthrobacter simplex** (Jensen 1934) Lochhead.  
   **Author's strain No.** None. **Culture collection Nos.** ATCC 6946, NCIB 8929. **Status:** No comment. **Annotations:** AMEND: Jensen to NCTC to ATCC to NCIB. **DELETE:** Jensen (1933, 181). **SUBSTITUTE:** Jensen (1934, 43).

27. **Arthrobacter terrigenus** Lochhead and Burton 1953.  
   **Author's strain No.** 88. **Culture collection Nos.** ATCC 13345, NCIB 8909 (not 8908), CDA 857. **Status:** Holotype (not cotype). **Annotations:** AMEND: Lochhead to Landerkin to NCIB. Holotype, Lochhead and Burton (1953, 17).

   **Author's strain No.** None. **Culture collection Nos.** ATCC 6947, NCIB 8914, CDA 836. **Status:** No comment. **Annotations:** AMEND: Jensen to NCTC to ATCC to Lochhead to Landerkin to NCIB. **DELETE:** Jensen (1933, 181). **SUBSTITUTE:** Jensen (1934, 45).

   **Author's strain No.** NC. **Culture collection Nos.** ATCC 7562, NCIB 7811. **Status:** No comment. **Annotations:** AMEND: ATCC to NCTC to NCIB.
30. **Azotobacter beijerinckii** Lipman 1955  
   *Author's strain No. 3. Culture collection No. HMS MB 2.3, NCIB 8948. Status: no comment. Annotations: AMEND: Soriano to van Niel to NCIB.*

31. **Azotobacter indicum** Starkey and De 1939 (not A. indicus)  
   *Author's strain No. Starkey 10. Culture collection Nos. ATCC 9037, NCIB 8597, HMS MB 5.1. Status: Cotype. Annotations: AMEND: Starkey to ATCC. Lochhead to NCIB.*

32. **Azotobacter turgidus** Starkey and De 1939  
   *Author's strain No. Starkey 11. Culture collection Nos. ATCC 9039, NCIB 8712, HMS MB 5.2. Status: Cotype. Annotations: AMEND: Starkey to ATCC. van Niel to NCIB.*

33. **Azotobacter lacticogenes** Kauffmann and Toussaint 1951  
   *Author's strain No. None. Culture collection No. NCIB 8846. Status: Cotype. Annotations: AMEND: Kauffmann to Jensen to NCIB. Kauffmann and Toussaint (1951, 553). Now considered a member of the genus *Beijerinckia* Derx, *B. lacticogenes*. Received by NCIB under latter name.*

34. **Azotobacter macrocystogenes** Jensen 1955  
   *Author's strain No. None. Culture collection Nos. NCIB 8700, 8701 and 8702. Status: Paratype. Annotations: AMEND: Jensen to NCIB. Jensen (1955, 278). NCIB 8700 is Jensen's original (O) culture, NCIB 8701 and NCIB 8702 are his variants (M) and (I) respectively.*

35. **Azotomonas insolita** Stapp 1940  
   *Author's strain No. None. Culture collection Nos. ATCC 12412, NCIB 9747. Status: Holotype. Annotations: AMEND: Stapp to Hofer to ATCC to NCIB. Holotype, Stapp (1940, 1).*

36. **Bacillus alvei** Cheshire and Cheyne 1895  

37. **Bacillus aminovorans** den Dooren de Jong 1927  
   *Author's strain No. 299. Culture collection Nos. NCIB 8292, ATCC 7046. Private collection No. N.R. Smith 341. Status: No comment. Annotations: AMEND: den Dooren de Jong to NCTC to Smith to ATCC to NCIB.*

38. **Bacillus anthracis** Cohn 1872, emend Koch 1876  
   *Author's strain No. Vollum. Culture collection Nos. NCIB 9377, ATCC 14578, NCTC 10340. Status: no comment. Annotations: AMEND: Sneath to NCIB.*

39. **Bacillus aerophtes** Fuller and Norman 1943  
   *Author's strain No. None. Culture collection Nos. ATCC 9500, NCIB 9555. Status: Cotype. Annotations: AMEND: Fuller to ATCC to NCIB.*

40. **Bacillus badus** Batchelor 1919, emend. Saghafi and Appleman 1953  
41. *Bacillus brevis* Migula 1900, *emend.* Ford 1916  
   **Author's strain No.** Ford 27b. **Culture collection Nos.** NCTC 2611, ATCC 8246, NCIB 9372. **Private collection No.** Smith 604.  
   **Status:** Proposed neotype. **Annotations:** ADD: Gordon to NCIB. Gibson to NCTC.

42. *Bacillus cereus* Frankland and Frankland 1887  
   **Author's strain No.** None. **Culture collection Nos.** ATCC 14579, NCIB 9373, NCTC 2599. **Private collection Nos.** Gibson 971, Ford 13. **Status:** Cotype. **Annotations:** ADD: Gordon to NCIB.

43. *Bacillus circulans* Jordan 1890, *emend.* Ford 1916  
   **Author's strain No.** Ford 26. **Culture collection Nos.** NCTC 2610 (not 2601), ATCC 4513, NCIB 9374. **Private collection No.** Smith 726. **Status:** Cotype. **Annotations:** ADD: Gordon to NCIB. Gibson to NCTC.

44. *Bacillus coagulans* Hammer 1915  
   **Author's strain No.** None. **Culture collection Nos.** ATCC 7050, NCIB 9365, CN 2202, NCTC 10334. **Private collection No.** Smith 609. **Status:** Cotype. **Annotations:** ADD: Gordon to NCIB.

45. *Bacillus firmus* Werner 1933  
   **Author's strain No.** None. **Culture collection Nos.** ATCC 14575, NCIB 9366, CN 3314. **Private collection No.** Smith 613. **Status:** Cotype. **Annotations:** ADD: Gordon to NCIB.

46. *Bacillus laterocostatus* Laubach 1916  
   **Author's strain No.** None. **Culture collection Nos.** ATCC 64, NCIB 9367, NCTC 6357. **Private collection No.** Smith 314, Ford 6. **Status:** Cotype. **Annotations:** ADD: Gordon to NCIB.

47. *Bacillus lentus* Gibson 1935  
   **Author's strain No.** Gibson 165. **Culture collection Nos.** ATCC 10840, NCTC 4824, NCIB 8773, HMS RA 7.1, CCMDB 2179. **Status:** Holotype. **Annotations:** AMEND: Gibson to Smith and NCTC to NCIB. Smith to ATCC. Listed by Smith *et al.* (1964, 269) as type culture, therefore preferred to ATCC 10841.

   **Author's strain No.** Ford 11. **Culture collection Nos.** ATCC 9789, NCIB 8061, FPO 12196. **Private collection No.** Smith 978. **Status:** no comment. **Annotations:** ADD: ATCC to NCIB.

49. *Bacillus macerans* Scharlunger 1905  
   **Author's strain No.** None. **Culture collection Nos.** ATCC 8244, NCIB 9368 (not 9386), HMS RA 12.9, NCTC 6355, Smith 888. **Status:** no comment. **Annotations:** ADD: Gordon to NCIB.

50. *Bacillus megaterium* de Bary 1884  
   **Author's strain No.** Ford 19. **Culture collection Nos.** ATCC 14581, NCIB 9376, NCTC 10342. **Private collection No.** Gibson 1060. **Status:** no comment. **Annotations:** ADD: Gordon to NCIB.

51. *Bacillus pantotherdicus* Proom and Knight 1950  
   **Author's strain No.** None. **Culture collection Nos.** NCTC 8162, NCIB 8775, ATCC 14576, CN 3028 (not 3208). **Private collection No.** Smith 1321. **Status:** no comment. **Annotations:** ADD: Proom to NCTC to NCIB.
52. *Bacillus pasteurii* (Miquel 1889) Migula 1900

53. *Bacillus polymyxa* (Prazmowski 1880) Migula 1900

54. *Bacillus pumilus* Gottheil 1901

55. *Bacillus sphaericus* Neide 1904
   Author's strain No. None. Culture collection Nos. ATCC 14577, NCIB 9370, NCTC 10338. Status: no comment. Annotations: AMEND: Gordon to NCIB.

56. *Bacillus steaothermophilus* Donk 1920
   Author's strain No. None. Culture collection Nos. ATCC 12980, NCIB 9123, NCA 26, NCTC 10339, Smith T18. Status: no comment. Annotations: AMEND: Donk to NCA to Smith to ATCC to NCIB.

57. *Bacillus thuringiensis* Berliner 1915

58. DELETE: *Bacteroides ruminicola* Bryant et al. 1958
   Author's strain No. 23. Status: Received by, but never accessioned to NCIB.

59. DELETE: *Bacteroides ruminicola* Bryant et al. 1958
   Author's strain No. GA 33. Annotations: Received by, but never accessioned to NCIB.

60. ADD: *Beggeriose indicus* Starkey and Dc 1939, *emend.* Dc 1950
   Author's strain No. Starkey 10.1. Culture collection Nos. ATCC 9037, HMS MB 5.1, NCIB 8597. Status: Cotype. Annotations: Starkey to ATCC; Lochhead to NCIB. Starkey and Dc (1939, 329) and Dc (1950, 140). Strain Starkey 11.1 (ATCC 9039, NCIB 8712) is also a cotype.

61. ADD: *Beggeriose lactiogens* Kauffmann and Toussaint, 1951 *emend.* Tc. 1953

62. *Bacteroides hyperoptica* (Campbell and Williams 1951) Campbell
   Author's strain No. None. Culture collection Nos. NCMB 678, CCMB 251, ATCC 15803. Status: no comment. Annotations: AMEND: McCleskey to CCMB to Smith to NCMB to ATCC.

63. *Brevibacterium ammoniagenes* (Cooke and Keith 1927) Breed 1953
   Author's strain No. 9.6. Culture collection No. ATCC 6871, NCIB 8143. Status: no comment. Annotations: Cooke to NCTC to ATCC to NCIB.
64. *Brevibacterium leucinophilum* Kinney and Werkman 1960
   Author's strain No. None. Culture collection Nos. ATCC 13809, NCIB 9542. Status: no comment. Annotations: AMEND: Kinney to Werkman to ATCC to NCIB.

65. *Brevibacterium stations* (ZoBell and Upham 1944) Breed 1953
   Author's strain No. None. Culture collection Nos. CCMB 317, NCMB 565. Status: no comment. Annotations: AMEND: ZoBell to CCMB and Shewan to NCMB.

66. *Butyribacterium rettgeri* Barker and Haas 1944
   Author's strain Nos. 32 of GR, A 2. Culture collection Nos. ATCC 10825, NCIB 9554. Status: Holotype. Annotations: AMEND: Barker to ATCC to NCIB. ADD: Now shown to be synonymous with *Eubacterium limosum* and renamed *Butyribacterium limosum* - Moore and Cato (1965, 69).

67. ADD: *Butyribacterium limosum* (Eggerth 1935) Moore and Cato 1965

68. DELETE: *Butyribacterium fibrisolvens* Bryant and Small 1956
   Annotations: Received by, but never acceded to NCIB.

69. ADD: *Caryophanon latum* Peshkoff 1940
   Author's strain No. aa. Culture collection No. NCIB 9533. Status: no comment. Annotations: Kudriavzev to NCIB? Cotype. NCIB 9534, strain Sa is similar.

   Author's strain No. None. Culture collection Nos. ATCC 11764, NCIB 9082. Status: no comment. Annotations: ADD: Grula to NCIB.

71. *Cellulomonas fimii* (McBeth and Scales 1913) Bergey et al. 1923
   Author's strain No. 133. Culture collection Nos. ATCC 484, NCIB 8980, QM B 527. Private collection No. Smith 133. Status: no comment. Annotations: ADD: QM to NCIB.

72. *Chromobacterium lividum* (Eisenberg 1891) Bergey

73. *Chromobacterium violaceum* (Schroeter 1872) Bergonzini 1881

74. *Chromobacterium viscosum* Grimes 1927
   Author's strain No. None. Culture collection Nos. ATCC 6918, NCIB 743, Canad-242B, B-150, NCIB 8180. Status: no comment. Annotations: ADD: Grimes to NCTC to ATCC to NCIB.

75. *Clostridium butyricum* Prazmowski 1880
   Author's strain No. Rowett. Culture collection Nos. ATCC 7423, NCIB 742. Status: no comment. Annotations: AMEND: Howie to NCTC to NCIB.
76. *Clostridium felsineum* (Carbone and Tombolato 1917) Bergey et al. 1930.
Authors strain No. None. Culture collection Nos. Canad 212a, A-7, DELETE NCIB 8656. Private collection No. McCoy A-41. Status: no comment. Annotations: ADD: Discarded from NCIB as stock found not to agree with description of *C. felsineum.* Similarly, NCIB 9338 (ATCC 13160) does not agree with original description being pink pigmented and not liquefying gelatin. Strains NCIB 9539 and 9540 (McClung to Vaughn to NCIB) are suggested as working types.

77. *Clostridium histolyticum* (Weinberg and Séguin 1916) Bergey et al. 1923.

78. *Clostridium pasteurianum* Winogradsky 1895

79. *Clostridium rubrum* Ng and Vaughn 1963
Author's strain No. 34. Culture collection Nos. ATCC 14949, NCIB 9503. Status: no comment. Annotations: ADD: Vaughn to NCIB.

80. *Clostridium septicum* (Mace 1888) Ford 1927
Authors strain No. Pasteur III. Culture collection Nos. NCTC 547, ATCC 12464, NCIB 547. Status: no comment. Annotations: AMEND: Muriel Robertson to NCTC to NCIB and ATCC.

81. *Clostridium sporogenes* (Metchnikoff 1908) Bergey et al. 1923
Author's strain No. S. R. 5. Culture collection Nos. NCTC 532, NCIB 532. Status: no comment. Annotations: AMEND: Muriel Robertson to NCTC to NCIB.

82. *Clostridium tertium* (Henry 1916) Bergey et al. 1923
Author's strain No. P 11, Col 54. Culture collection Nos. NCTC 541, NCIB 541. Status: no comment. Annotations: AMEND: Petrie to Robertson to NCTC to NCIB.

83. *Corynebacterium aquaticum* Leifson
Author's strain No. 150. Culture collection Nos. ATCC 14665, NCIB 9460. Status: no comment. Annotations: AMEND: Leifson to ATCC to NCIB.

84. *Corynebacterium rubrum* Crowle 1962
Author's strain No. None. Culture collection Nos. ATCC 14898, NCIB 9433, NCTC 10391. Annotations: AMEND: Crowle to ATCC and NCIB.

85. *Cytophaga hutchinsonii* Winogradsky 1929

86. *Desulfovibrio gigas* LeGall 1963
Author's strain No. None. Culture Collection No. NCIB 9332. Status: Holotype. Annotations: AMEND: LeGall to Postgate to NCIB.
88. ADD: Enterobacter aerogenes Hormaeche and Edwards 1960
   Author's strain No. 819-56. Culture collection Nos. NCTC 10006,
   neotype, Hormaeche and Edwards (1960,71).
89. ADD: Enterobacter cloacae (Jordan 1890) Hormaeche and Edwards
   1960.
   Author's strain No. 279-56. Culture collection Nos. NCTC 10005,
   neotype, Hormaeche and Edwards (1960,71).
90. Escherichia coli (Migula 1895) Castellani and Chalmers 1919
   Author's strain No. Escherich. Culture collection Nos. NCTC 86,
   ATCC 4157, NCIB 86. Status: Cotype. Annotations: ADD: Lister
   Institute to NCTC to NCIB.
91. Escherichia intermedia (Werkman and Gillen 1932) Vaughn and
   Levine 1942. Author's strain No. M8 BK.
   Culture collection Nos. ATCC 6750, NCIB 8173. Status: no com-
   ment. Annotations: AMEND: Werkman to ATCC to NCIB.
92. Eubacterium limosum (Eggerth 1935) Prevot 1938
   Culture collection Nos. ATCC 8486, NCIB 9763. Status: Holotype. Annotations: AMEND: Eggerth to ATCC
   to NCIB. New combination Butyribacterium limosum q. v. Moore
   and Cato (1965, 69).
93. DELETE: Eubacterium ruminantium Bryant 1959
   Author's strain No. GA 195. Annotations: Received by, but never
   acceded to NCIB.
94. Flavobacterium aquatile (Frankland and Frankland 1889) Bergey et
   al. 1923. Author's strain No. F 36.
   Culture collection Nos. ATCC 11947, NCIB 8694, NCMB 644,
   DELETE NCIB 9758. Status: no comment. Annotations: ADD:
   Taylor to Weeks to ATCC, NCIB and NCMB.
95. Flavobacterium marinotypicum ZoBell and Upham 1944
   Author's strain No. None. Culture collection Nos. NCMB 1050,
   CCMDB 319. Status: no comment. Annotations: AMEND: ZoBell
   to CCMDB to NCMB.
96. Flavobacterium oceanokoites ZoBell and Upham 1944
   Author's strain No. None. Culture collection Nos. CCMDB 320,
   NCMB 1054. Status: no comment. Annotations: AMEND: ZoBell
   to CCMDB to NCMB.
97. Flavobacterium resinovorum Delaporte and Daste 1956 (not Delapate)
   Author's strain No. None. Culture collection Nos. ATCC 12524,
   NCIB 8767. Status: no comment. Annotations: AMEND: Daste to
   ATCC and NCIB. Cotype, Delaporte and Daste (1956, 831).
98. Halobacterium halobium (Petter 1931) Elazari-Volcani 1940
   Author's strain No. EVG-32.1. Culture collection Nos. HMS EVG-
   32.1, DELETE NCIB 8720. Status: no comment. Annotations: AMEND:
   No longer held by NCIB.
99. Halobacterium halobium (Petter 1931) Elazari-Volcani 1940
   Author's strain EV-6.31.1. Culture collection No. DELETE NCIB
   8720. Status: no comment. Annotations: AMEND: No longer held
   in NCIB. Other strains of Halobacterium halobium, originally
   from Elazari-Volcani (to Hutner to NRC Ottawa to Shewan to NCMB)
   are available from NCMB.
100. *Halobacterium trapanicum* (Petter 1931) Elazari-Volcani 1940
Author's strain No. EV. 32.1. Culture collection No. DELETE NCIB 8719. Annotations: AMEND: No longer held in NCIB.

101. *Jannula canicruria* Bissett and Moore 1950
Author's strain No. None. Culture collection Nos. NCTC 8036, ATCC 11048, NCIB 8147. Status: Holotype. Annotations: ADD: NCTC to NCIB.

102. DELETE: *Laschnospira multiporus* Bryant and Small 1956
Annotations: Received by, but never accessioned to NCIB.

103. *Lactobacillus caucasicus* (Beijerinck 1889) Beijerinck 1901
Author's strain No. Ke 10. Culture collection Nos. ATCC 8007, DELETE NCIB 8120. Annotations: ADD: Discarded by NCIB as being a strain of *L. brevis*.

104. AMEND: *Lactobacillus fermenti* Beijerinck 1901 (not *L. fermentum*)

105. *Lactobacillus frigidus* Bhandari and Walker 1953
Author's strain No. None. Culture collection Nos. ATCC 11307, NCIB 8518. Status: no comment. Annotations: ADD: Now listed by NCIB as a strain of *L. buchneri*.

106. *Lactobacillus malefermentans* Russell and Walker 1953
Annotations: ADD: Discarded from NCIB, stock re-identified as *Bacillus circulans*.

107. *Leuconostoc citrovorum* (Hammer 1920) Hucker and Pederson 1930

108. *Lincola longa* Pringsheim 1950
Annotations: ADD: Shown to be a sporing rod—*Bacillus macroroides*, Bennett and Canale-Parola (1965, 197).

Author's strain No. OJ. 8. Culture collection Nos. ATCC 10340, NCIB 8707. Status: no comment. Annotations: AMEND: Orla-Jensen to Doetsch to ATCC to NCIB.

110. *Microbacterium lacticum* Orla-Jensen 1919
Author's strain No. 6. Culture collection Nos. ATCC 8181, NCIB 8541 (not 8451). Private collection No. Pederson 6. Annotations: AMEND: Orla-Jensen to Pederson to ATCC to NCIB.

111. AMEND: *Microbispora rosae* Nonomura and Ohara 1957 (not *Microbispora* based on bispora—two spored)
Culture collection Nos. ATCC 12950, NCIB 9560. Annotations: Nonomura to ATCC to NCIB.

112. *Micrococcus conglomeratus* Migula 1900
Author's strain No. 349. Culture collection Nos. ATCC 401, CCMDB 547, NCIB 2677, NCDO 761. Status: no comment. Annotations: AMEND: Hucker to ATCC to NCTC to NCIB.

113. *Micrococcus eucinetus* Leifson 1964
Author's strain No. XQ 40. Culture collection Nos. ATCC 15234, NCMB 1349. Annotations: AMEND: Leifson to ATCC to NCMB.

114. *Micrococcus halodenitrificans* Robinson and Gibbons 1952
Culture collection Nos. Canad-201 732, Canad-212 509, NCMB 700. Annotations: AMEND: Robinson to Canad-201 and Canad-212 to NCMB.
115. **Micrococcus luteus** (Schroeter 1872) Cohn 1872  
Author's strain No. Hucker 426. Culture collection Nos. NCTC 8512, ATCC 398, NCIB 8165, CCMD 810. Status: no comment. Annotations: ADD: Hucker to ATCC to NCTC to NCIB.

116. **Micrococcus sodonensis** Aaronson 1955  
Author's strain No. B. Culture collection Nos. ATCC 11880, NCIB 8854. Status: Holotype. Annotations: AMEND: Aaronson to ATCC to NCIB.

117. **Microelllobospora cinerea** Cross et al. 1963  
Author's strain No. None. Culture collection Nos. IMRU 3855, NCIB 9585. Status: Holotype. Annotations: ADD: Cross to IMRU and NCIB.

118. **Microelllobospora fleyea** Cross et al. 1963  
Author's strain No. None. Culture collection Nos. IMRU 3857, NCIB 9587. Status: Cotype. Annotations: AMEND: Cross to IMRU and NCIB. IMRU 3858 (NCIB 9588) is another cotype.

119. **Moraxella nonliquefaciens** Murray and Truant 1954  

120. **Mycoplasma homorpha** Gray and Thornton 1928  

121. **Neisseria haemolytica** Thoeffta and Bpee 1938  

122. **Pediococcus cerevisiae** Balcke 1884  

123. ADD: **Pediococcus cerevisiae** Balcke 1884  

124. **Photobacterium harveyi** (Johnson and Shunk 1936) Breed and Lessel 1954  
Author's strain No. None. Culture collection Nos. ATCC 14126, NCMB 1280. Status: Holotype. Annotations: AMEND: Johnson to ATCC to NCMB.

125. **Propionibacterium pentosaceum** van Niel 1928  
Author's strain No. 4. Culture collection Nos. ATCC 4875, NCIB 8070, NCDO 570, HMS E.2.1. Status: no comment. Annotations: AMEND: van Niel to ATCC to NCIB.

126. **Propionibacterium petersonii** van Niel 1928  
Author's strain No. 20. Culture collection Nos. ATCC 4870, NCIB 5962, NCDO 565. Annotations: AMEND: van Niel to ATCC and NCTC to NCIB. Status: no comment.
127. *Propionibacterium technicum* van Niel 1928  
Author's strain No. 22. Culture collection Nos. ATCC 4873, NCIB 5965, NCDO 567, HMS E. 6.1. Status: no comment. Annotations: AMEND: van Niel to ATCC to NCTC to NCIB.

128. *Propionibacterium theonii* van Niel 1928  
Author's strain No. 19. Culture collection Nos. ATCC 4872, NCIB 8072. Status: no comment. Annotations: AMEND: van Niel to ATCC to NCIB.

129. *Propionibacterium zeae* Hitchner 1932  
Author's strain No. None. Culture collection Nos. ATCC 4964, NCIB 5967, NCDO 569. Status: no comment. Annotations: AMEND: Hitchner to ATCC and NCTC to NCIB to NCDO.

130. *Protaminobacter alboflavus* den Dooren de Jong 1926  

131. *Protaminobacter ruber* den Dooren de Jong 1926  

132. *Proteus morogentii* (Winslow et al. 1919) Rauss 1936  
Author's strain No. 33M. Culture collection Nos. NCTC 235, ATCC 8075, NCIB 235. Status: no comment. Annotations: ADD: Morgan to Lister Institute to NCTC to NCIB.

133. *Proteus vulgaris* Hauser 1885  
Author's strain No. Lehmann. Culture collection Nos. NCTC 4175, ATCC 13315, NCIB 4175. Status: Neotype. Annotations: ADD: Lehmann to Pribram Collection, Vienna, to NCTC to NCIB.

134. *Pseudomonas aeruginosa* (Schroeter 1872) Migula 1900  
Author's strain No. Radlett. Culture collection Nos. NCTC 6750, NCIB 6750. Status: no comment. Annotations: ADD: Schutze to NCTC to NCIB. N.B. This strain is nonmotile and therefore atypical.

135. *Pseudomonas aeruginosa* (Schroeter 1872) Migula 1900  
Author's strain No. None. Culture collection Nos. ATCC 10145, CCEB 481, NCIB 8295, NCTC 10332. Status: Proposed neotype. AMEND: Merck to Kavanagh to ATCC to NCIB and CCEB.

136. *Pseudomonas aeruginosa* (Schroeter 1872) Migula 1900  
Author's strain No. D. Culture collection Nos. ATCC 14216, NCIB 9685. Status: Proposed neotype. Annotations: AMEND: Van den Ende to Wood to ATCC to Liston et al. and NCIB.

137. *Pseudomonas aureofaciens* Kluyver 1957  

Author's strain No. None. Culture collection Nos. ATCC 12417, NCIB 9391. Status: Holotype. Annotations: AMEND: Anderson to ATCC to NCIB.

140. *Pseudomonas diminuta* Leifson and Hugh 1954
   Author's strain No. RH 342. Culture collection Nos. NCTC 8545, CCEB 513, NCIB 9393, ATCC 11568. Status: no comment. Annotations: AMEND: Leifson to NCTC and ATCC to NCIB.

141. *Pseudomonas echinoides* Heumann 1962
   Author's strain No. None. Culture collection Nos. ATCC 14820, NCIB 9420. Status: no comment. Annotations: AMEND: Leifson to NCTC and ATCC to NCIB.

142. *Pseudomonas elongata* Humm 1946
   Author's strain No. None. Culture collection Nos. ATCC 10144, NCMB 1141, (Delete NCIB 8294). Status: no comment. Annotations: AMEND: Heumann to ATCC and NCIB.

143. *Pseudomonas fluorescens* Migula 1895
   Author's strain No. None. Culture collection Nos. NCTC 9096, ATCC 13525, NCIB 8542. Status: no comment. Annotations: AMEND: Rhodes to NCTC, ATCC and NCIB.

144. *Pseudomonas formica* Crawford 1954
   Private collection No. R. Hugh 514. Culture collection Nos. ATCC 13137, NCMB 23, NCIB 8295. Status: no comment. Annotations: AMEND: Crawford to Shewan (to NCMB) and Hugh to ATCC and NCIB.


146. *Pseudomonas gerculata* (Wright 1895) Chester 1901
   Author's strain No. None. Culture collection Nos. NCIB 9428, CCEB 338. Status: no comment. Annotations: ADD: Lysenko to NCIB.

147. *Pseudomonas indologlicans* Gray 1928
   Author's strain No. None. Culture collection Nos. ATCC 9355, NCIB 2760, ATCC 13751. Status: no comment. Annotations: AMEND: Gray to ATCC and NCTC to NCIB. Gray to CCMB.

148. *Pseudomonas iodinum* (Davis 1939) Tobie 1939

149. *Pseudomonas maltophilia* Hugh 1960 (not maltophilia)

150. *Pseudomonas mucilaginosus* Levine and Anderson 1932

151. *Pseudomonas natrigenes* Payne et al. 1961
   Author's strain No. None. Culture collection Nos. ATCC 14048, NCMB 857. Status: no comment. Annotations: AMEND: Payne to ATCC and NCIB.
152. *Pseudomonas oleovorans* Lee and Chandler 1941
   Author's strain No. None. Culture collection Nos. ATCC 8062, NCIB 6576, (DELETE NCMB 30). Status: no comment.
   Annotations: AMEND: Chandler to ATCC to NCTC to NCIB.

153. *Pseudomonas ovalis* Chester 1901
   Author's strain No. None. Culture collection Nos. ATCC 8209, NRRL B-1595, CCEB 380, NCIB 8296. Status: no comment.
   Annotations: ADD: Smith to ATCC to NCIB.

154. *Pseudomonas perlirida* Kellerman et al. 1913

155. *Pseudomonas pictorum* Gray and Thornton 1928
   Author's strain No. None. Culture collection Nos. CCMD 284, CCEB 322, NCIB 9152. Status: no comment. Annotations: AMEND: Gray to CLIP and CCMD to NCIB.

156. *Pseudomonas pseudomallev* (Whitmore 1913) Haynes comb. nov. 
   Author's strain No. None. Culture collection Nos. ATCC 15682, NRRL B-1112, CCEB 472, NCIB 9674, NCTC 4845. Status: no comment. Annotations: ADD: NCTC to NRRL to NCIB and CCEB.

   Author's strain No. None. Culture collection Nos. ATCC 14235, NCIB 9280. Status: No comment. Annotations: ADD: Daste to NCIB.

158. *Pseudomonas rhodos* Heumann 1962
   Author's strain No. None. Culture collection Nos. ATCC 14821, NCIB 9421. Status: no comment. Annotations: AMEND: Heumann to ATCC and NCIB.

159. *Pseudomonas riboflavina* Foster 1944
   Private collection No. Foster (Merck) 4 R 3337. Culture collection Nos. ATCC 9526, NCIB 8177, IFO 3140. Status: no comment. Annotations: AMEND: Foster to ATCC to NCIB.

160. *Pseudomonas rubescens* Pivnick 1955 (not 1944)

161. *Pseudomonas saccharophila* Doudoroff 1940
   Author's strain No. None. Culture collection Nos. ATCC 9114, NRRL B-1492, NCIB 8570. Status: no comment. Annotations: AMEND: Doudoroff to ATCC and NRRL. Doudoroff and Palleroni to NCIB.

162. *Pseudomonas stutzeri* (Lehmann and Neumann 1896) Kluvyer 1942

163. *Pseudomonas synantha* (Ehrenberg 1840) Holland 1920
   Author's strain No. None. Culture collection Nos. ATCC 9890, NCIB 8178, NRRL B-780, CCEB 607. Status: no comment. Annotations: AMEND: Hammer to Breed to ATCC to NCIB and CCEB. ADD: N. B. CCEB 293 was stated to be the same as ATCC 9890 (CCEB Catalogue, 1960; Lysenko 1961, 379). In the 1963 CCEB Catalogue, strain CCEB 293 (a contaminant, erroneously proposed as neotype) has been withdrawn from the genus *Pseudomonas* and placed in *Serratia*. CCEB 607 has been substituted as
being equivalent to ATCC 9890, *Pseudomonas synxantha*. As the proposal of the neotype was based on a contaminant, and not on the authentic culture, it is doubtful if it is now valid.

164. *Pseudomonas taetrolens* Haynes 1957

*Author's strain No.* None. *Culture collection Nos.* NRRL B-14, CCEB 381, ATCC 4683, NCIB 9396. *Status:* no comment. *Annotations:* ADD: Levine to Anderson to Burns to ATCC to NCIB.

165. *Rhodopseudomonas capsulata* (Molisch 1907) van Niel 1944

*Author's strain No.* Ewart C 10. *Culture collection No.* HMS ATH 2.3.1, ATCC 11166, NCIB 8524 (not 8286). *Status:* no comment. *Annotations:* AMEND: van Niel (1944, 92).

166. *Rhodopseudomonas gelatinosa* (Molisch 1907) van Niel 1944


167. *Rhodopseudomonas palustris* (Molisch 1907) van Niel 1944


168. *Rhodopseudomonas spheroides* van Niel 1955

*Author's strain No.* ATH 2.4.1. *Culture collection Nos.* HMS ATH 2.4.1, ATCC 11167, NCIB 8253. *Status:* no comment. *Annotations:* AMEND: van Niel to Elsden to NCIB to ATCC. NCIB 8253 and NCIB 8287 are the same strain, the latter being received by NCIB direct from van Niel.

169. *Sarcina ureae* (Beijerinck 1901) Löhnis 1911

*Private collection No.* Smith 42. *Culture collection Nos.* ATCC 6473, NCIB 9251. *Status:* no comment. *Annotations:* ADD: Kluyster to Gibson to NCIB.

170. *Serratia marcescens* Bizio 1823

*Author's strain No.* Delft 137. *Culture collection Nos.* NCTC 1377, ATCC 274, NCDO 740, NCIB 1377. *Status:* no comment. *Annotations:* ADD: Kluyster to NCTC to NCIB.

171. *Serratia marcescens* Bizio 1823

*Author's strain No.* None. *Culture collection Nos.* NCTC 10211, ATCC 13880, NCIB 9155, CCMDB 303. *Status:* no comment. *Annotations:* ADD: Kocur to NCIB.

172. *Spirillum anulus* Williams and Rittenberg 1957

*Author's strain No.* None. *Culture collection Nos.* ATCC 11879, NCIB 9012. *Status:* Holotype. *Annotations:* AMEND: Williams to ATCC and NCIB.

173. *Spirillum beijerinckii* Williams and Rittenberg 1957

*Author's strain No.* None. *Culture collection Nos.* ATCC 12754, NCMB 52. *Status:* Holotype. *Annotations:* AMEND: Williams to NCMB to ATCC.

174. DELETE: *Spirillum curvatum* Williams and Rittenberg 1957

*Annotations:* Culture no longer available.

175. *Spirillum delicatum* Leifson 1962

176. *Spirillum giesbergen* Williams and Rittenberg 1957
   **Author's strain No.** None. **Culture collection Nos.** ATCC 11334, NCIB 9073. **Status:** Holotype. **Annotations:** AMEND: Williams to NCIB.

177. *Spirillum graniferum* Williams and Rittenberg 1957
   **Author's strain No.** None. **Culture collection Nos.** ATCC 9785, NCIB 8230. **Status:** Holotype. **Annotations:** ADD: ATCC to NCIB.

178. *Spirillum itersoonii* var. *vulgatum* Williams and Rittenberg 1957
   **Culture collection Nos.** ATCC 11441, NCIB 9071, NCMB 58, NRRL B-2054. **Status:** Holotype. **Annotations:** ADD *S. itersoonii* Giesberger 1936 which is available as a reisolate by Giesberger (type cultures lost) as ATCC 12639, NCIB 9070, NRRL B-2053.

179. *Spirillum linum* Williams and Rittenberg 1957
   **Author's strain No.** None. **Culture collection Nos.** ATCC 11336, NCMB 56. **Status:** Holotype. **Annotations:** AMEND: Williams to NCMB to ATCC.

   **Author's strain No.** None. **Culture collection Nos.** ATCC 15280, IFO 12012, NCIB 9509. **Status:** Holotype. **Annotations:** AMEND: Terasaki to ATCC and NCIB.

181. *Spirillum polymorphum* Williams and Rittenberg 1957
   **Author's strain No.** None. **Culture collection Nos.** NCIB 9072, ATCC 11332, NCMB 51. **Status:** Holotype. **Annotations:** AMEND: Williams to NCIB to ATCC.

   **Author's strain No.** None. **Culture collection Nos.** ATCC 15279, IFO 12013, NCIB 9508. **Status:** Holotype. **Annotations:** ADD: Terasaki to NCIB and ATCC. AMEND: Terasaki (1961, 79).

183. *Spirillum serpens* var. *asgutum* Williams and Rittenberg 1957 (not *S. serpens* (Müller) Winter)
   **Author's strain No.** None. **Culture collection Nos.** ATCC 11335, NCIB 9011. **Status:** Holotype. **Annotations:** AMEND: Williams to NCIB.

184. *Spirillum sinuosum* Williams and Rittenberg 1957
   **Author's strain No.** None. **Culture collection Nos.** ATCC 9786, NCIB 9010, NCMB 59, CCMB 558. **Status:** Holotype. **Annotations:** AMEND: Lewis to O. B. Williams to ATCC to Marion Williams to NCIB.

   **Author's strain No.** S. 41. **Culture collection Nos.** NCTC 7292 (not 7297), NCIB 8711. **Status:** no comment. **Annotations:** AMEND: NCTC to NCIB.

186. DELETE: *Streptococcus asalignus* Frost, Gumm and Thomas 1927
   **Annotations:** Discarded from NCIB (no streptococci present in all stock examined).

187. *Streptococcus cremoris* Orla-Jensen 1919
   **Author's strain No.** HP. **Culture collection Nos.** NCDO 607, NCIB 8662. **Status:** no comment. **Annotations:** ADD: NIRD to NCIB.

188. *Streptococcus faecalis* Andrews and Horder 1906
   **Author's strain No.** None. **Culture collection Nos.** NCTC 775, NCDO 581, NCIB 775. **Status:** no comment. **Annotations:** ADD: NCTC to NCIB.
18. **Streptococcus mucilaginosus** Kulka et al. 1949  
   Author's strain No. None. Culture collection No. ATCC 11304,  
   (DELETE NCIB 8274). Annotations: ADD: Discarded from  
   NCIB.

1. **Streptococcus thermophilus** Orla-Jensen 1916  
   Author's strain No. B of R. Culture collection Nos. NCDO 573,  
   NCIB 8510. Status: no comment. Annotations: ADD: Mattick  
   to NCIB.

19. **Streptomyces albus** (Rossi-Doria 1891, *emend.* Krainsky 1914)  
   Waksman and Henrici 1943  
   Author's strain No. None. Culture collection Nos. ATCC 3004,  
   IMRU 3004, NCIB 9558. Status: Neotype. Annotations: AMEND:  
   ATCC to Pridham and NCIB.

19. **Streptomyces kentuckensis** Barr and Carman 1956  
   Author's strain No. None. Culture collection Nos. ATCC 12691,  
   PSA 99, NCIB 9624, NRRL B-1831. Status: Holotype. Annotations:  
   ADD: NRRL to NCIB. Holotype, Barr and Carman (1956,  
   286).

19. **Streptomyces olivaceus** (Waksman 1923) Waksman and Henrici 1948  
   Author's strain No. None. Culture collection Nos. ATCC 11626,  
   NRRL B-1125, PSA 137, NCIB 8238. Status: no comment.  
   Annotations: ADD: Lumb to NCIB.

19. **Streptomyces rimosus** Sobin et al. 1950  
   Private collection No. Waksman 3558 Culture collection Nos.  
   ATCC 10970, NRRL B-2234, NCIB 8229. Status: Holotype.  
   Annotations: ADD: NRRL to Lumb to NCIB.

19. **Streptomyces rubireticuli** (Waksman and Henrici 1948 (not **S.**  
   rubireticulæ))

19. **Streptomyces tendae** Ettlinger et al.  
   Author's strain No. None. Culture collection Nos. PSA 92,  
   NCIB 9614. Status: no comment. Annotations: ADD: Ettlinger  
   to PSA to NCIB.

19. DELETE: **Succinivibrio dextrinosolvens** Bryant and Small 1956  
   Author's strain No. 24. Annotations: Received by but never  
   accessioned to NCIB.

19. DELETE: **Succinomonas amylytica** Bryant et al. 1958  
   Author's strain No. B4. Annotations: Received by but never  
   accessioned to NCIB.

19. **Thiobacillus concretivorus** Parker 1945  
   Author's strain No. None. Culture collection Nos. ADD: NCIB  
   8345, DELETE: NCIB 8538. Status: Cotype. Annotations:  
   Parker to Butlin to NCIB.

**Thiobacillus novellus** Starkey 1934  
   Author's strain No. None. Culture collection Nos. ATCC 8093,  
   NCIB 9113. Status: no comment. Annotations: AMEND:  
   Starkey to ATCC to NCIB.

20. **Thiobacillus thiocyanatis** Happold et al. 1954  
   Author's strain No. None. Culture collection Nos. NCIB 5177,  
   (DELETE: NCIB 8861). Status: no comment. Annotations:  
   AMEND: Happold to NCIB (8861 no longer available).
201. *Thiobacillus thioparus* Beijerinck 1904
   Author's strain No. None. Culture collection Nos. ATCC 8158, NCIB 8370. Status: no comment. Annotations: AMEND: Starkey to ATCC to NCIB.

202. *Vibrio anguillarum* ZoBell and Upham 1944
   Author's strain No. None. Culture collection Nos. CCMDB 326, NCMB 1052. Status: Cotype. Annotations: AMEND: ZoBell to CCMDB to NCMB.

203. *Vibrio aegyptius* Bergman 1909

204. *Vibrio cholerasuis* Hayward and Stadtman 1959
   Author's strain No. None. Culture collection Nos. ATCC 13541, NCIB 9467. Status: no comment. Annotations: AMEND: Hayward to ATCC and Postgate to NCIB.

205. *Vibrio cycloides* Gray and Thornton 1928
   Author's strain No. None. Culture collection Nos. ATCC 6972, NCIB 8194. Status: Holotype. Annotations: AMEND: Gray and Thornton to NCTC to ATCC to NCIB.

206. *Vibrio cymatosus* Gray and Thornton 1928
   Author's strain No. None. Culture collection Nos. NCIB 2581, ATCC 14635. Status: Holotype. Annotations: AMEND: Gray and Thornton to NCTC to NCIB to ATCC.

207. *Vibrio nozakii* Gray and Thornton 1928
   Author's strain No. None. Culture collection Nos. NCIB 2582, ATCC 14636. Status: Cotype. Annotations: AMEND: Gray and Thornton to NCTC to NCIB to ATCC.

208. *Vibrio parvicus* Mudd and Warren 1923

209. *Zymomonas mobilis* (Lindner 1928) Kluvýr and van Neil 1936
   Author's strain No. None. Culture collection Nos. ATCC 10988, NRRL B-806, NCIB 8938. Status: Cotype. Annotations: AMEND: NRRL to ATCC to Elsden to NCIB. NCIB cultures are nonmotile.

REFERENCES


