ANNOTATIONS FROM THE NCTC ON THE LIST OF
TYPE AND REFERENCE STRAINS OF BACTERIA,
SNEATH AND SKERMAN 1966¹

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ABSTRACT. This annotation contains a series of amendments and additions to the National Collection of Type Culture data on strains held in the National Collection of Type Cultures which are given in "A list of type and reference strains of bacteria," (Sneath and Skerman 1966). Amendments or additions to the data of other Culture Collections are not included. It is suggested that copies of the list should be emended to avoid errors until a revised list is published.

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INTRODUCTION

This annotation contains amendments and additions from the National Collection of Type Cultures to "A new list of type and reference strains of bacteria" published in the International Journal of Systematic Bacteriology prepared for the International Subcommittee on Numerical Taxonomy (Sneath and Skerman 1966).

In the amendments and additions the strains are arranged alphabetically in the same order and under the same nomenclature as in the list. They may be kept in the National Collection under another name, for example Chromobacterium viscosum NCTC 2416 in the list is kept in the National Collection as Corynebacterium viscosum NCTC 2416.

¹ When a culture is requested from the National Collection of Type Cultures which has been chosen from Sneath and Skerman's list, please quote both the name and the NCTC number of the culture, and mention that it was selected from this list, in order to avoid any errors.

The following types of amendment are given:

1. Cultures quoted with NCTC numbers which have been discarded from the National Collection of Type Cultures, e. g. "Acetobacter capsulatus NCTC 4943 discarded from NCTC."
2. Cultures maintained in the NCTC under the strain name or number quoted in the list but whose NCTC numbers were not quoted, e. g. "Aerobacter lipolyticus 'ATCC 14460' kept as NCTC 10422."
3. Misquotation of NCTC numbers is corrected, e. g. "Bacillus circulans. Strain 'Ford 26' change NCTC 2601 to NCTC 2610." In case workers possess cultures of the misquoted number, the name of the organism allotted that number is given to avoid confusion. "NCTC 2601 is a discarded culture of Bacillus cereus."
4. Changes in Sneath and Skerman's annotations are prefixed by the word 'annotation.'
5. The depositor of the strain in the NCTC is given for information, where it was not quoted or where it was incorrectly attributed in the list, e. g. "Alcaligenes odorans, CCEB to NCTC."
6. Miscellaneous amendments and comments.

The amendments and additions have been made from our records and checked against other available sources in order to keep the amendments as accurate as possible.

Amendments to other Culture Collection data have not been given.

Judging by the number of amendments to the National Collection data, it would seem advisable to prepare a new list as suggested on p. 14 of Sneath and Skerman's paper, when changes and comments have been published by Culture Collections and by other workers.

ALPHABETICAL LIST OF AMENDMENTS AND ADDITIONS
TO SNEATH AND SKERMAN'S LIST

<u>Acetobacter capsulatus</u>	NCTC 4943 discarded from NCTC
<u>Acetobacter mobilis</u>	NCTC 6428 discarded from NCTC
<u>Acetobacter suboxydans</u>	NCTC 3734 discarded from NCTC
<u>Acetobacter turbidans</u>	NCTC 6249 discarded from NCTC
<u>Achromobacter cycloclastes</u>	NCTC 2572 discarded from NCTC
<u>Actinobacillus lignieresii</u>	NCTC 4976 = strain "CM 2". Annotation: P. Martin to NCTC
<u>Actinomyces naeslundii</u>	Strain "279" kept as NCTC 10301. Annotation: Pine to NCTC
<u>Aerobacter lipolyticus</u>	"ATCC 14460" kept as NCTC 10422. Annotation: ATCC to NCTC
<u>Aeromonas shigelloides</u>	Strain "M51" kept as NCTC 10360. Annotation: ATCC to NCTC
<u>Alcaligenes haemolysans</u>	NCTC 5043 discarded from NCTC
<u>Alcaligenes odorans</u>	Strain "14-45", "CCEB 554" kept as NCTC 10416. Annotation: CCEB to NCTC
<u>Arthrobacter simplex</u>	NCTC 4215 discarded from NCTC
<u>Arthrobacter tumescens</u>	NCTC 4216 discarded from NCTC
<u>Arthrobacter ureafaciens</u>	NCTC 7811 discarded from NCTC
<u>Bacillus alvei</u>	Strain "Lochhead" kept as NCTC 6352 Annotation: Gibson to NCTC. Quoted as "Lochhead 127", Smith <u>et al.</u> , 1964, J.gen.Microbiol., 34, 269-272
<u>Bacillus aminovorans</u>	NCTC 2870 discarded from NCTC
<u>Bacillus anthracis</u>	Strain "Vollum" kept as NCTC 10340. Annotation: Gibson to NCTC
<u>Bacillus badius</u>	Strain "N.R. Smith 663" kept as NCTC 10333. Annotation: Gibson to NCTC
<u>Bacillus brevis</u>	NCTC 2611. Annotation: Gibson to NCTC
<u>Bacillus cereus</u>	Strain "Gibson 971" kept as NCTC 2599. Annotation: Gibson to NCTC

- Bacillus circulans Strain "Ford 26", change NCTC 2601 to NCTC 2610.
Annotation: Gibson to NCTC.
(NCTC 2601 is a discarded culture of Bacillus cereus)
- Bacillus coagulans Strain "N.R. Smith 609" kept as NCTC 10334.
Annotation: Gibson to NCTC
- Bacillus firmus Strain "N.R. Smith 613" kept as NCTC 10335.
Annotation: Gibson to NCTC
- Bacillus laterosporus Strain "Ford 6" kept as NCTC 6357.
Annotation: Gibson to NCTC.
- Bacillus lentus Comment on annotation: Smith et al., 1964, J.gen.Microbiol., 34, 269-272, propose ATCC 10840 as type culture.
ATCC 10840 = "Gibson 165" kept as NCTC 4824. Gibson to NCTC.
- Bacillus licheniformis NCTC 2586 discarded from NCTC
- Bacillus licheniformis Strain "Gibson 46" kept as NCTC 10341.
Annotation: Gibson to NCTC
- Bacillus macerans Strain "N.R. Smith 888" kept as NCTC 6355.
Annotation: Gibson to NCTC
- Bacillus megaterium Strain "Ford 19" kept as NCTC 10342.
Annotation: Gibson to NCTC
- Bacillus pantothenicus NCTC 8162. Change strain "CN 3208" to "CN 3028", Smith et al., 1964. J.gen. Microbiol., 34, 269-272 and NCTC records. Annotation: Proom to NCTC
- Bacillus polymyxa "ATCC 842" kept as NCTC 10343.
Annotation: Gibson to NCTC
- Bacillus pumilus Strain "Král" kept as NCTC 10337.
Annotation: Gibson to NCTC
- Bacillus sphaericus Strain "Gibson 1013" kept as NCTC 10338.
Annotation: Gibson to NCTC
- Bacillus stearothermophilus Strain "N.R. Smith T18", "NCA 26", kept as NCTC 10339.
Annotation: Gibson to NCTC
- Bacillus subtilis NCTC 3610. Change strain "Smith 704" to "N.R. Smith 744", NCTC records

<u>Bacterionema matruchotii</u>	"ATCC 14266" kept as NCTC 10254. Annotation: Gilmour to NCTC
<u>Bordetella pertussis</u>	NCTC 9797. Annotation: Change "Pittman to ATCC to NCTC" to "Kendrick to Standfast to NCTC"
<u>Brevibacterium ammoniagenes</u>	NCTC 2398 discarded from NCTC
<u>Brucella abortus</u>	Strain "544" kept as NCTC 10093. Annotation: Payne to NCTC
<u>Brucella melitensis</u>	NCTC 7470. Annotation: Cruickshank to NCTC
<u>Brucella melitensis</u>	Strain "16M" kept as NCTC 10094. Annotation: Payne to NCTC
<u>Brucella suis</u>	Strain "1330" kept as NCTC 10316. Annotation: Brinley-Morgan to NCTC
<u>Chromobacterium violaceum</u>	NCTC 9757. Annotation: Sneath to NCTC
<u>Chromobacterium viscosum</u>	NCTC 2416. Annotation: Grimes to NCTC
<u>Clostridium botulinum</u>	NCTC 7272. Annotation: Change "PHLS to NCTC" to "Microbiological Research Establishment, Porton to B.C. Hobbs to NCTC"
<u>Clostridium chauvoei</u>	NCTC 8070. Annotation: Gaiger to Henderson to NCTC
<u>Clostridium novyi</u>	Change NCTC 541 to NCTC 538 quoted Willis and Hobbs, 1959. NCTC 538 = Strain "Jolly". Annotation: Weinberg to Robertson to NCTC. (NCTC 541 is a culture of <u>Clostridium tertium</u>)
<u>Clostridium perfringens</u>	NCTC 8237. Annotation: Burroughs Wellcome to NCTC
<u>Clostridium septicum</u>	NCTC 547 change strain "Pasteur 111" to "Pasteur III"
<u>Clostridium tertium</u>	NCTC 541. Change "PII Col" to "PII Col 54". Annotation: Petrie to Robertson to NCTC
<u>Corynebacterium bovis</u>	ATCC 7715. Strain "Evans" kept as NCTC 3224. Annotation: Evans to NCTC
<u>Corynebacterium pseudotuberculosis</u>	NCTC 3450. Annotation: Buxton to Petrie to NCTC

<u>Corynebacterium rubrum</u>	"ATCC 14898" kept as NCTC 10391. Annotation: ATCC to NCTC
<u>Escherichia coli</u>	NCTC 9001. Strain "U5/41". Annotation: Kauffmann to NCTC
<u>Escherichia coli</u>	NCTC 86. Annotation: Lister Institute to NCTC
<u>Escherichia freundii</u>	NCTC 9750. Annotation: ATCC to NCTC
<u>Flavobacterium meningosepticum</u>	NCTC 10016. Annotation: King to NCTC
<u>Haemophilus aegyptius</u>	NCTC 8502. Annotation: Pittman to NCTC
<u>Haemophilus haemoglobinophilus</u>	Strain "XIII" change to "XIII". Annotation: Friedberger to Kristensen to Fildes to NCTC
<u>Haemophilus haemolyticus</u>	NCTC 8479. Annotation: Pittman to NCTC
<u>Haemophilus vaginalis</u>	Strain "Dukes' 594" kept as NCTC 10287. Annotation: Zinnemann to NCTC
<u>Klebsiella edwardsii</u>	NCTC 5054. Annotation: Snijders to NCTC. Add variety <u>edwardsii</u>
<u>Klebsiella edwardsii</u>	NCTC 9496. Annotation: Edwards to NCTC
<u>Klebsiella pneumoniae</u>	NCTC 9633. Annotation: Edwards to NCTC
<u>Klebsiella rhinoscleromatis</u>	NCTC 5046. Annotation: Snijders to NCTC
<u>Kurthia zopfii</u>	NCTC 404. Annotation: Rettger to NCTC. Change ATCC 405 to NCTC 405.
<u>Lactobacillus leichmannii</u>	NCTC 7854 discarded from NCTC
<u>Leptotrichia buccalis</u>	ATCC 14201. Add NCTC 10249
<u>Leptotrichia dentium</u>	NCTC 10206 add strain "LDM 3"
<u>Listeria monocytogenes</u>	NCTC 10357. Delete strain "58-xxiii" add strain "53 XXIII". Annotation: Murray to NCTC. From a rabbit.
<u>Listeria monocytogenes</u>	NCTC 7973 add strain "58 XXIII". Annotation: Webb to NCTC. From a guinea pig.

- Listeria monocytogenes (cont.) Annotation: Both strains from laboratory epidemic described in Murray, Webb & Swann, 1926. J.Path.Bact., 29, 407.
- Micrococcus agilis NCTC 2676. Annotation: Piorkowski to Pribram Collection to Breed to ATCC to NCTC
- Micrococcus hyicus NCTC 10350. Annotation: ATCC to NCTC
- Micrococcus luteus NCTC 8512. Annotation: ATCC to NCTC
- Micrococcus rhodochrous Strain "KMRh" kept as NCTC 10210. Annotation: Gordon to NCTC
- Micrococcus roseus NCTC 7523. Annotation: Shaw et al., 1951 propose NCTC 7520 as type species. Hill, 1959 suggested NCTC 7523
- Moraxella lacunata NCTC 7784. Comment: We classify this strain as Moraxella non-liquefaciens in NCTC. In our hands it fails to liquefy serum or gelatin, see Bøvre & Henriksen, Acta path.microbiol. scand., 1962, 56, 223-228 and Bøvre, 1964, ibid., 61, 457-473.
- Moraxella lwoffii NCTC 5866. Add strain "Lwoff"
- Mycobacterium acapulcensis NCTC 10270. Annotation: Bojalil to NCTC
- Mycobacterium balnei Strain "X" kept as NCTC 10011. Annotation: ATCC to NCTC
- Mycobacterium flavescens NCTC 10271. Annotation: Bojalil to NCTC
- Mycobacterium fortuitum Strain "IOC-1" probably J.C. Cruz 1, if so kept as NCTC 10394. Annotation: Gordon to NCTC
- Mycobacterium gordonae NCTC 10267. Annotation: Bojalil to NCTC
- Mycobacterium kansasii Annotation: Strain "P22" kept as NCTC 10268 = ATCC 14471. Bojalil to NCTC
- Mycobacterium marinum ATCC 927 = strain "Aronson", kept as NCTC 2275. Annotation: Aronson to NCTC
- Mycobacterium peregrinum NCTC 10264. Annotation: Bojalil to NCTC

<u>Mycobacterium rubrum</u>	NCTC 1468 discarded from NCTC
<u>Mycobacterium runyonii</u>	NCTC 10269. Annotation: Bojalil to NCTC
<u>Mycobacterium smegmatis</u>	Annotation: Strain "W113" kept as NCTC 10265 = ATCC 14468
<u>Mycobacterium tuberculosis</u>	NCTC 7417 change strain "H37 Ra" to "H37 Ra". Annotation: Strain "H37 Rv" kept as NCTC 7416, this strain is ATCC to NCTC
<u>Mycobacterium ulcerans</u>	NCTC 7816 discarded from NCTC redeposited as NCTC 10417. Annotation: NCTC 10417 Buckle to NCTC
<u>Mycoplasma mycoides</u>	NCTC 3278 discarded from NCTC
<u>Neisseria caviae</u>	Strain "GP 11" kept as NCTC 10293. Annotation: Pelczar to NCTC
<u>Neisseria flavescens</u>	NCTC 8263. Annotation: Branham to NCTC
<u>Neisseria gonorrhoeae</u>	NCTC 8375. Annotation: Wilson to NCTC
<u>Neisseria haemolysans</u>	NCTC 5414 discarded from NCTC
<u>Neisseria meningitidis</u>	Strain "M 1027" kept as NCTC 10025. Annotation: Branham to NCTC
<u>Neisseria ovis</u>	Was not deposited with the NCTC from our records.
<u>Nocardia farcinica</u>	NCTC 4524. Annotation: ATCC to NCTC
<u>Nocardia salivae</u>	NCTC 10207. Add strain "B61"
<u>Paracolobactrum arizonae</u>	NCTC 8297. Add strain "DC 5". Annotation: Edwards to NCTC
<u>Pasteurella multocida</u>	NCTC 3195. Annotation: Change "Schutz" to "Schütze"
<u>Pasteurella pestis</u>	NCTC 5923. Annotation: Change "Schutz" to "Schütze"
<u>Pediococcus cerevisiae</u>	NCTC 8066. Annotation: Pederson to NCTC
<u>Propionibacterium arabinosum</u>	NCTC 5958 discarded from NCTC
<u>Propionibacterium jensenii</u>	NCTC 5960 discarded from NCTC
<u>Propionibacterium peterssonii</u>	NCTC 5962 discarded from NCTC

<u>Propionibacterium technicum</u>	NCTC 5965 discarded from NCTC
<u>Protaminobacter alboflavus</u>	NCTC 2875 discarded from NCTC
<u>Protaminobacter ruber</u>	NCTC 2879 discarded from NCTC
<u>Proteus morganii</u>	NCTC 235. Annotation: Morgan to Lister Institute to NCTC
<u>Proteus vulgaris</u>	NCTC 4175. Add strain "Lehmann". Annotation: Lehmann to Pribram Collection to NCTC
<u>Providencia alcalifaciens</u>	"ATCC 9886" kept as NCTC 10286
<u>Pseudomonas aeruginosa</u>	NCTC 6750. Annotation: Schütze to NCTC
<u>Pseudomonas aeruginosa</u>	Strain "RH 815" kept as NCTC 10332. Annotation: Lysenko to NCTC
<u>Pseudomonas alcaligenes</u>	"ATCC 14909" kept as NCTC 10367. Add strain "Hugh 1577". Annotation: ATCC to NCTC
<u>Pseudomonas barkeri</u>	NCTC 393 discarded from NCTC
<u>Pseudomonas chlororaphis</u>	ATCC 9446. Delete NCTC 9392, ATCC 9446 is not kept in the NCTC. (NCTC 9392 is a strain of <u>Neisseria</u> <u>meningitidis</u>)
<u>Pseudomonas indoloxidans</u>	NCTC 2760 discarded from NCTC
<u>Pseudomonas iodinum</u>	NCTC 9742. Annotation: ATCC to NCTC. Comment: We have no record of "Davis" as strain name
<u>Pseudomonas maltophilia</u>	NCTC 10257. Annotation: ATCC to NCTC
<u>Pseudomonas mucidolens</u>	ATCC 4685 kept as NCTC 8068. Annotation: ATCC to NCTC
<u>Pseudomonas pseudomallei</u>	NCTC 4845 strain "S 397" = ATCC 15682. Annotation: W.A. Young to NCTC
<u>Rhodospirillum rubrum</u>	NCTC 7762 discarded from NCTC
<u>Salmonella choleraesuis</u>	NCTC 5735. Add strain "1348, K34". Annotation: Kauffmann to NCTC
<u>Salmonella typhi</u>	NCTC 8385. Add strain "Ty2". Annotation: Felix to NCTC

<u>Salmonella typhimurium</u>	NCTC 74. Add strain "Mutton". Annotation: Lister Institute to NCTC
<u>Serratia marcescens</u>	NCTC 1377. Annotation: Kluyver to NCTC
<u>Serratia marcescens</u>	NCTC 10211. Add strain "BS 303". Annotation: Kocur to NCTC
<u>Shigella dysenteriae</u>	NCTC 4837. Annotation: Scott to NCTC
<u>Spirillum mancutiense</u>	NCTC 9582 discarded from NCTC
<u>Staphylococcus afermentans</u>	NCTC 2665. Annotation: Fleming to NCTC
<u>Staphylococcus aureus</u>	NCTC 8532. NCTC 8532 is <u>designated</u> as the neotype. Opinion 17, Jud. Comm. Annotation: Cowan to NCTC
<u>Staphylococcus lactis</u>	NCTC 7564. Annotation: Gibson to NCTC
<u>Staphylococcus saprophyticus</u>	Strain "S41". Change NCTC 7297 to NCTC 7292. (NCTC 7297 is a strain of <u>Salmonella arizonae</u>). Annotation: Cowan to NCTC
<u>Streptobacillus moniliformis</u>	NCTC 8069. Klieneberger-Nobel to NCTC
<u>Streptococcus agalactiae</u>	NCTC 8181. Annotation: Stableforth to NCTC
<u>Streptococcus asalignus</u>	NCTC 2294 discarded from NCTC
<u>Streptococcus faecalis</u>	NCTC 775. Add strain "Tissier" Annotation: Pasteur Institute to Brown to NCTC in 1920. Redeposited Hannay to NCTC in 1950.
<u>Streptococcus faecium</u>	NCTC 7171. Annotation: Grumbach to NCTC
<u>Streptococcus lactis</u>	NCTC 6681. Add strain "OJ"
<u>Streptococcus uberis</u>	NCTC 3858. Add strain "Diernhofer"
<u>Vibrio comma</u>	NCTC 8021. Annotation: Standards Laboratory, Colindale to NCTC
<u>Vibrio cuneatus</u>	NCTC 2583 discarded from NCTC
<u>Vibrio cyclosites</u>	NCTC 2581 discarded from NCTC
<u>Vibrio fetus</u>	NCTC 10354 is strain "X/161/5". Annotation: Park to NCTC. Comment: Strain "Milton" is NCTC 5850. Dalling to NCTC

<u>Vibrio neocistes</u>	NCTC 2582 discarded from NCTC
<u>Vibrio percolans</u>	NCTC 1937. Add strain "Mudd". Annotation: Mudd to NCTC
<u>Xanthomonas proteamaculans</u>	NCTC 394 discarded from NCTC

REFERENCE

- Sneath, P.H.A. and Skerman, V.B.D. (1966). A list of type and reference strains of bacteria. Int.J.Syst.Bact., 16: 1-133.