

Taxonomic Outline of the Bacteria and Archaea, Release 7.7 March 6, 2007.
Part 7 – The Bacteria: Phylum “Firmicutes”: Class “Clostridia”
George M. Garrity, Timothy G. Lilburn, James R. Cole,
Scott H. Harrison, Jean Euzéby, and Brian J. Tindall

Phylum *Firmicutes*^{AL} N4Lid DOI: 10.1601/nm.3874

Class “*Clostridia*” N4Lid DOI: 10.1601/nm.3875 71

Order *Clostridiales*^{AL} Prévot 1953. N4Lid DOI: 10.1601/nm.3876

Family *Clostridiaceae*^{AL} Pribram 1933. N4Lid DOI: 10.1601/nm.3877

Genus *Clostridium*^{AL} Prazmowski 1880. GOLD ID: Gi00163. GCAT ID: 000971_GCAT. Entrez genome id: 80. Sequenced strain: BC1 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 6 (GOLD) 6 (NCBI). N4Lid DOI: 10.1601/nm.3878

Clostridium butyricum^{AL} Prazmowski 1880. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19398. High-quality 16S rRNA sequence S000436450 (RDP), M59085 (Genbank). N4Lid DOI: 10.1601/nm.3879

Clostridium aceticum^{VP} (ex Wieringa 1940) Gottschalk and Braun 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35044. High-quality 16S rRNA sequence S000016027 (RDP), Y18183 (Genbank). N4Lid DOI: 10.1601/nm.3881

Clostridium acetireducens^{VP} Örlýgsson et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10703. High-quality 16S rRNA sequence S000004716 (RDP), X79862 (Genbank). N4Lid DOI: 10.1601/nm.3882

Clostridium acetobutylicum^{AL} McCoy et al. 1926. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 824. High-quality 16S rRNA sequence S000437209 (RDP), U16166 (Genbank). GOLD ID: Gc00060. GCAT ID: 000550_GCAT. Entrez genome id: 77. Sequenced strain: DSM 792 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3883

Clostridium acidisoli^{VP} Kuhner et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-167. High-quality 16S rRNA sequence S000130726 (RDP), AJ237756 (Genbank). N4Lid DOI: 10.1601/nm.9203

Clostridium acidurici^{AL} corrig. (Liebert 1909) Barker 1938. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 7906. High-quality 16S rRNA sequence S000436449 (RDP), M59084 (Genbank). N4Lid DOI: 10.1601/nm.3885

Clostridium aerotolerans^{VP} van Gylswyk and van der Toorn 1987. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43524. High-quality 16S rRNA sequence S000260335 (RDP), X76163 (Genbank). N4Lid DOI: 10.1601/nm.3886

Clostridium akagii^{VP} Kuhner et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-166. High-quality 16S rRNA sequence S000127491 (RDP), AJ237755 (Genbank). N4Lid DOI: 10.1601/nm.3887

Clostridium aldrichii^{VP} Yang et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49358. High-quality 16S rRNA sequence S000014604 (RDP), X71846 (Genbank). N4Lid DOI: 10.1601/nm.3888

Clostridium algidicarnis^{VP} Lawson et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15099. High-quality 16S rRNA sequence S000260168 (RDP), X77676 (Genbank). N4Lid DOI: 10.1601/nm.3889

Clostridium algidixylanolyticum^{VP} Broda et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-156. High-quality 16S rRNA sequence S000428723 (RDP), AF092549 (Genbank). N4Lid DOI: 10.1601/nm.3890

Clostridium alkalicellulosi^{VP} corrig. Zhilina et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17461. High-quality 16S rRNA sequence S000536517 (RDP), AY959944 (Genbank). N4Lid DOI: 10.1601/nm.10071

Clostridium aminophilum^{VP} Paster et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49906. High-quality 16S rRNA sequence S000414260 (RDP), L04165 (Genbank). N4Lid DOI: 10.1601/nm.3891

Clostridium aminovalericum^{AL} Hardman and Stadtman 1960. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 13725. High-quality 16S rRNA sequence S000260726 (RDP), X73436 (Genbank). N4Lid DOI: 10.1601/nm.3892

Clostridium amygdalinum^{VP} Parshina et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-501. High-quality 16S rRNA sequence S000408090 (RDP), AY353957 (Genbank). N4Lid 10.1601/nm.9242

Clostridium arcticum^{VP} (ex Jordan and McNicol 1979) Cato et al. 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: Jordan and McNicol n[∞] III. N4Lid DOI: 10.1601/nm.3893

Clostridium argentinense^{VP} Suen et al. 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27322. High-quality 16S rRNA sequence S000260680 (RDP), X68316 (Genbank). N4Lid DOI: 10.1601/nm.3894

Clostridium aurantibutyricum^{AL} Hellinger 1944. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17777. High-quality 16S rRNA sequence S000380963 (RDP), S46736 (Genbank). N4Lid DOI: 10.1601/nm.3895

Clostridium baratii^{AL} corrig. (Prévot 1938) Holdeman and Moore 1970. ≈ *Clostridium paraperfringens* (later heterotypic synonym), links through 10.1601./nm.3896. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27638. High-quality 16S rRNA sequence S000009597 (RDP), X68174 (Genbank). N4Lid DOI: 10.1601/nm.3896

† *Clostridium paraperfringens*^{AL} Nakamura et al. 1970. ≈ *Clostridium baratii* (earlier heterotypic synonym), links through 10.1601./nm.3896. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27639. N4Lid DOI: 10.1601/nm.3985

† *Clostridium perenne*^{AL} (Prévot 1940) McClung and McCoy 1957. ≈ *Clostridium baratii* (earlier heterotypic synonym), links through 10.1601./nm.3896. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25782. N4Lid DOI: 10.1601/nm.3990

Clostridium bartlettii^{VP} Song et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-827. High-quality 16S rRNA sequence S000409718 (RDP), AY438672 (Genbank). N4Lid DOI: 10.1601/nm.8545

Clostridium beijerinckii^{AL} Donker 1926. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25752. High-quality 16S rRNA sequence S000014607 (RDP), X68179 (Genbank). GOLD ID: Gi00156. GCAT ID: 000966_GCAT. Entrez genome id: 12637. Sequenced strain: NCIMB 8052 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3898

Clostridium bifermentans^{AL} (Weinberg and Séguin 1918) Bergey et al. 1923. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 638. High-quality 16S rRNA sequence S000260727 (RDP), X73437 (Genbank). N4Lid DOI: 10.1601/nm.3899

Clostridium bolteae^{VP} Song et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-613. High-quality 16S rRNA sequence S000125562 (RDP), AJ508452 (Genbank). GOLD ID: Gi01715. GCAT ID: 000658_GCAT. Sequenced strain: ATCC BAA-613 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.3900

Clostridium botulinum^{AL} (van Ermengem 1896) Bergey et al. 1923. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25763. High-quality 16S rRNA sequence S000414699 (RDP), L37585 (Genbank). GOLD ID: Gi00157. GCAT ID: 000968_GCAT. Entrez genome id: 193. Sequenced strain: ATCC 3502 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3901

Clostridium bowmanii^{VP} Spring et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-581. High-quality 16S rRNA sequence S000137817 (RDP), AJ506119 (Genbank). N4Lid DOI: 10.1601/nm.3902

Clostridium cadaveris^{AL} (Klein 1899) McClung and McCoy 1957. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25783. High-quality 16S rRNA sequence S000436451 (RDP), M59086 (Genbank). N4Lid DOI: 10.1601/nm.3904

Clostridium caminithermale^{VP} Brisbarre et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15212. High-quality 16S rRNA sequence S000394496 (RDP), AF458779 (Genbank). N4Lid DOI: 10.1601/nm.3905

Clostridium carboxidivorans^{VP} Liou et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-624. High-quality 16S rRNA sequence S000399546 (RDP), AY170379 (Genbank). N4Lid 10.1601/nm.9596

Clostridium carnis^{AL} (Klein 1904) Spray 1939. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25777. High-quality 16S rRNA sequence S000436456 (RDP), M59091 (Genbank). N4Lid DOI: 10.1601/nm.3906

Clostridium celatum^{AL} Hauschild and Holdeman 1974. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27791. High-quality 16S rRNA sequence S000260781 (RDP), X77844 (Genbank). N4Lid DOI: 10.1601/nm.3907

Clostridium celerecrescens^{VP} Palop et al. 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49205. High-quality 16S rRNA sequence S000007744 (RDP), X71848 (Genbank). N4Lid DOI: 10.1601/nm.3908

Clostridium cellobioparum^{AL} Hungate 1944. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 15832. High-quality 16S rRNA sequence S000014948 (RDP), X71856 (Genbank). N4Lid DOI: 10.1601/nm.3909

Clostridium cellulofervens^{VP} He et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: AS 1.1775. N4Lid DOI: 10.1601/nm.3910

Clostridium cellulolyticum^{VP} Petitdemange et al. 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35319. High-quality 16S rRNA sequence S000007743 (RDP), X71847 (Genbank). GOLD ID: Gi01329. GCAT ID: 001741_GCAT. Entrez genome id: 17419. Sequenced strain: H10 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3911

Clostridium cellulosi^{VP} He et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: AS 1.1777. N4Lid DOI: 10.1601/nm.3912

Clostridium cellulovorans^{VP} Sleat et al. 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35296. High-quality 16S rRNA sequence S000005084 (RDP), X71849 (Genbank). N4Lid DOI: 10.1601/nm.3913

Clostridium chartatabidum^{VP} Kelly et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43536. High-quality 16S rRNA sequence S000009214 (RDP), X71850 (Genbank). N4Lid DOI: 10.1601/nm.3914

Clostridium chauvoei^{AL} (Arloing et al. 1887) Scott 1928. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 10092. High-quality 16S rRNA sequence S000437764 (RDP), U51843 (Genbank). N4Lid DOI: 10.1601/nm.3915

Clostridium clostridioforme^{AL} corrig. (Burri and Ankersmit 1906) Kaneuchi et al. 1976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25537. High-quality 16S rRNA sequence S000436454 (RDP), M59089 (Genbank). N4Lid DOI: 10.1601/nm.3916

Clostridium coccoides^{AL} Kaneuchi et al. 1976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29236. N4Lid DOI: 10.1601/nm.3917

Clostridium cochlearium^{AL} (Douglas et al. 1919) Bergey et al. 1923. ≈ *Clostridium lentoputrescens* (later heterotypic synonym), links through 10.1601/nm.3918. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17787. High-quality 16S rRNA sequence S000436458 (RDP), M59093 (Genbank). N4Lid DOI: 10.1601/nm.3918

† *Clostridium lentoputrescens*^{AL} Hartsell and Rettger 1934. ≈ *Clostridium cochlearium* (earlier heterotypic synonym), links through 10.1601/nm.3918. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17794. N4Lid DOI: 10.1601/nm.3963

- Clostridium cocleatum*^{AL} Kaneuchi et al. 1979. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29902. High-quality 16S rRNA sequence S000005838 (RDP), Y18188 (Genbank). N4Lid DOI: 10.1601/nm.3920
- Clostridium colicanis*^{VP} Greetham et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13634. High-quality 16S rRNA sequence S000366397 (RDP), AJ420008 (Genbank). N4Lid DOI: 10.1601/nm.3919
- Clostridium colinum*^{VP} (ex Berkhoff et al. 1974) Berkhoff 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27770. High-quality 16S rRNA sequence S000260204 (RDP), X76748 (Genbank). N4Lid DOI: 10.1601/nm.3921
- Clostridium collagenovorans*^{VP} Jain and Zeikus 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49001. High-quality 16S rRNA sequence S000260454 (RDP), X73439 (Genbank). N4Lid DOI: 10.1601/nm.3922
- Clostridium cylindrosporium*^{VP} (ex Barker and Beck 1942) Andreesen et al. 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 7905. High-quality 16S rRNA sequence S000022469 (RDP), Y18179 (Genbank). N4Lid DOI: 10.1601/nm.3923
- Clostridium difficile*^{AL} (Hall and O'Toole 1935) Prévot 1938. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 9689. High-quality 16S rRNA sequence S000260455 (RDP), X73450 (Genbank). GOLD ID: Gc00420. GCAT ID: 000190_GCAT. Entrez genome id: 78. Sequenced strain: 630 (epidemic type X) is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 2 (GOLD) 2 (NCBI). N4Lid DOI: 10.1601/nm.3924
- Clostridium diolis*^{VP} Biebl and Spröer 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-557. High-quality 16S rRNA sequence S000115736 (RDP), AJ458418 (Genbank). N4Lid DOI: 10.1601/nm.3925
- Clostridium disporicum*^{VP} Horn 1987. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43838. High-quality 16S rRNA sequence S000015682 (RDP), Y18176 (Genbank). N4Lid DOI: 10.1601/nm.3926
- Clostridium drakei*^{VP} Liou et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-623. High-quality 16S rRNA sequence S000005089 (RDP), Y18813 (Genbank). N4Lid 10.1601/nm.9597
- Clostridium estertheticum*^{VP} Collins et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51377. N4Lid 10.1601/nm.9229
- Clostridium estertheticum subsp. estertheticum*^{VP} Collins et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51377. High-quality 16S rRNA sequence S000013400 (RDP), X68181 (Genbank). N4Lid DOI: 10.1601/nm.3928
- Clostridium fallax*^{AL} (Weinberg and Séguin 1915) Bergey et al. 1923. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19400. High-quality 16S rRNA sequence S000436453 (RDP), M59088 (Genbank). N4Lid DOI: 10.1601/nm.3930
- Clostridium felsineum*^{AL} (Carbone and Tombolato 1917) Bergey et al. 1939. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17788. High-quality 16S rRNA sequence S000260370 (RDP), X77851 (Genbank). N4Lid DOI: 10.1601/nm.3931
- Clostridium fimetarium*^{VP} Kotsyurbenko et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9179. High-quality 16S rRNA sequence S000387301 (RDP), AF126687 (Genbank). N4Lid DOI: 10.1601/nm.3933
- Clostridium formicaceticum*^{AL} corrig. Andreesen et al. 1970. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27076. High-quality 16S rRNA sequence S000260847 (RDP), X77836 (Genbank). N4Lid DOI: 10.1601/nm.3934
- Clostridium frigidicarnis*^{VP} Broda et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-154. High-quality 16S rRNA sequence S000428393 (RDP), AF069742 (Genbank). N4Lid DOI: 10.1601/nm.3935
- Clostridium frigoris*^{VP} Spring et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-579. High-quality 16S rRNA sequence S000138430 (RDP), AJ506117 (Genbank). N4Lid DOI: 10.1601/nm.3936

- Clostridium ganghwense*^{VP} Kim et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 13193. High-quality 16S rRNA sequence S000482460 (RDP), AY903294 (Genbank). N4Lid 10.1601/nm.9962
- Clostridium gasigenes*^{VP} Broda et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-158. High-quality 16S rRNA sequence S000428722 (RDP), AF092548 (Genbank). N4Lid DOI: 10.1601/nm.3937
- Clostridium ghonii*^{AL} corrig. Prévot 1938. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25757. N4Lid DOI: 10.1601/nm.3938
- Clostridium glycolicum*^{AL} Gaston and Stadtman 1963. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 14880. High-quality 16S rRNA sequence S000434349 (RDP), AY007244 (Genbank). N4Lid DOI: 10.1601/nm.3939
- Clostridium grantii*^{VP} Mountfort et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 8605. High-quality 16S rRNA sequence S000016392 (RDP), X75272 (Genbank). N4Lid DOI: 10.1601/nm.3940
- Clostridium haemolyticum*^{AL} (Hall 1929) Scott et al. 1935. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 9650. High-quality 16S rRNA sequence S000004827 (RDP), AB037910 (Genbank). N4Lid DOI: 10.1601/nm.3941
- Clostridium halophilum*^{VP} corrig. Fendrich et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49637. High-quality 16S rRNA sequence S000260421 (RDP), X77837 (Genbank). N4Lid DOI: 10.1601/nm.3942
- Clostridium hathewayi*^{VP} Steer et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13479. High-quality 16S rRNA sequence S000139077 (RDP), AJ311620 (Genbank). N4Lid DOI: 10.1601/nm.3944
- Clostridium herbivorans*^{VP} Varel et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49925. High-quality 16S rRNA sequence S000414597 (RDP), L34418 (Genbank). N4Lid DOI: 10.1601/nm.3945
- Clostridium hiranonis*^{VP} Kitahara et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13275. High-quality 16S rRNA sequence S000006731 (RDP), AB023970 (Genbank). N4Lid DOI: 10.1601/nm.3946
- Clostridium histolyticum*^{AL} (Weinberg and Séguin 1916) Bergey et al. 1923. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19401. High-quality 16S rRNA sequence S000436459 (RDP), M59094 (Genbank). N4Lid DOI: 10.1601/nm.3947
- Clostridium homopropionicum*^{VP} Dörner and Schink 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51426. High-quality 16S rRNA sequence S000260249 (RDP), X76744 (Genbank). N4Lid DOI: 10.1601/nm.3950
- Clostridium hungatei*^{VP} Monserrate et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700212. High-quality 16S rRNA sequence S000387172 (RDP), AF020429 (Genbank). N4Lid DOI: 10.1601/nm.3948
- Clostridium hylemonae*^{VP} Kitahara et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15053. High-quality 16S rRNA sequence S000382698 (RDP), AB023973 (Genbank). N4Lid DOI: 10.1601/nm.3949
- Clostridium indolis*^{AL} McClung and McCoy 1957. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25771. High-quality 16S rRNA sequence S000000080 (RDP), Y18184 (Genbank). N4Lid DOI: 10.1601/nm.3952
- Clostridium innocuum*^{AL} Smith and King 1962. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 14501. High-quality 16S rRNA sequence S000436096 (RDP), M23732 (Genbank). N4Lid DOI: 10.1601/nm.3953
- Clostridium intestinale*^{VP} corrig. Lee et al. 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49213. High-quality 16S rRNA sequence S000260369 (RDP), X76740 (Genbank). N4Lid DOI: 10.1601/nm.3954
- Clostridium irregulare*^{AL} corrig. (Choukévitch 1911) Prévot 1938. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25756. High-quality 16S rRNA sequence S000260202 (RDP), X73447 (Genbank). N4Lid DOI: 10.1601/nm.3955

- Clostridium isatidis*^{VP} Padden et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15098. High-quality 16S rRNA sequence S000012343 (RDP), X98395 (Genbank). N4Lid DOI: 10.1601/nm.3956
- Clostridium jejuense*^{VP} Jeong et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15929. High-quality 16S rRNA sequence S000462273 (RDP), AY494606 (Genbank). N4Lid DOI: 10.1601/nm.8546
- Clostridium josui*^{VP} Sukhumavasi et al. 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: FERM P-9684. High-quality 16S rRNA sequence S000529502 (RDP), AB011057 (Genbank). N4Lid DOI: 10.1601/nm.3957
- Clostridium kluyveri*^{AL} Barker and Taha 1942. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 8527. High-quality 16S rRNA sequence S000436457 (RDP), M59092 (Genbank). N4Lid DOI: 10.1601/nm.3958
- Clostridium lactatifermentans*^{VP} van der Wielen et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14214. High-quality 16S rRNA sequence S000434672 (RDP), AY033434 (Genbank). N4Lid DOI: 10.1601/nm.3959
- Clostridium lacusfryxellense*^{VP} Spring et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-580. High-quality 16S rRNA sequence S000138431 (RDP), AJ506118 (Genbank). N4Lid DOI: 10.1601/nm.3960
- Clostridium estertheticum subsp. laramiense*^{VP} (Kalchayanand et al. 1993) Spring et al. 2003. <== *Clostridium laramiense* (basonym). Synonym links through N4Lid: 10.1601/ex.3961. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51254. N4Lid DOI: 10.1601/nm.3929
- † *Clostridium laramiense*^{VP} corrig. Kalchayanand et al. 1993. ==> *Clostridium estertheticum subsp. laramiense* (new combination). Synonym links through N4Lid: 10.1601/ex.3961. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51254. N4Lid DOI: 10.1601/nm.3961
- Clostridium lentocellum*^{VP} Murray et al. 1987. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49066. High-quality 16S rRNA sequence S000015700 (RDP), X71851 (Genbank). N4Lid DOI: 10.1601/nm.3962
- Clostridium leptum*^{AL} Moore et al. 1976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29065. High-quality 16S rRNA sequence S000436460 (RDP), M59095 (Genbank). N4Lid DOI: 10.1601/nm.3964
- Clostridium limosum*^{AL} Andre 1948. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25620. N4Lid DOI: 10.1601/nm.3965
- Clostridium litorale*^{VP} Fendrich et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49638. High-quality 16S rRNA sequence S000260914 (RDP), X77845 (Genbank). N4Lid DOI: 10.1601/nm.3966
- Clostridium lituseburense*^{AL} (Laplanche and Saissac 1948) McClung and McCoy 1957. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25759. High-quality 16S rRNA sequence S000436472 (RDP), M59107 (Genbank). N4Lid DOI: 10.1601/nm.3967
- Clostridium ljungdahlii*^{VP} Tanner et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 55383. High-quality 16S rRNA sequence S000436462 (RDP), M59097 (Genbank). GOLD ID: Gi00159. GCAT ID: 000970_GCAT. Entrez genome id: 13492. Sequenced strain: ATCC 55383 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3968
- Clostridium lundense*^{VP} Cirne et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17049. High-quality 16S rRNA sequence S000576711 (RDP), AY858804 (Genbank). N4Lid 10.1601/nm.9932
- Clostridium magnum*^{VP} Schink 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49199. High-quality 16S rRNA sequence S000260420 (RDP), X77835 (Genbank). N4Lid DOI: 10.1601/nm.3970
- Clostridium malenominatum*^{AL} (Weinberg et al. 1937) Spray 1948. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25776. High-quality 16S rRNA sequence S000436464 (RDP), M59099 (Genbank). N4Lid DOI: 10.1601/nm.3971

- Clostridium mangenotii*^{AL} (Prévot and Zimmès-Chaverou 1947) McClung and McCoy 1957. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25761. High-quality 16S rRNA sequence S000436463 (RDP), M59098 (Genbank). N4Lid DOI: 10.1601/nm.3972
- Clostridium mayombi*^{VP} Kane et al. 1992. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51428. N4Lid DOI: 10.1601/nm.3973
- Clostridium methoxybenzovorans*^{VP} Mechichi et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700855. High-quality 16S rRNA sequence S000428373 (RDP), AF067965 (Genbank). N4Lid DOI: 10.1601/nm.3974
- Clostridium methylpentosum*^{VP} Himelbloom and Canale-Parola 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43829. High-quality 16S rRNA sequence S000014612 (RDP), Y18181 (Genbank). N4Lid DOI: 10.1601/nm.3975
- Clostridium neopropionicum*^{VP} Tholozan et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 3847. High-quality 16S rRNA sequence S000260780 (RDP), X76746 (Genbank). N4Lid DOI: 10.1601/nm.3976
- Clostridium nexile*^{AL} Holdeman and Moore 1974. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27757. High-quality 16S rRNA sequence S000260729 (RDP), X73443 (Genbank). N4Lid DOI: 10.1601/nm.3977
- Clostridium novyi*^{AL} (Migula 1894) Bergey et al. 1923. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17861. High-quality 16S rRNA sequence S000414708 (RDP), L37594 (Genbank). GOLD ID: Gc00464. GCAT ID: 000145_GCAT. Entrez genome id: 16820. Sequenced strain: NT is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3978
- Clostridium oceanicum*^{AL} Smith 1970. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25647. High-quality 16S rRNA sequence S000436466 (RDP), M59101 (Genbank). N4Lid DOI: 10.1601/nm.3979
- Clostridium orbiscindens*^{VP} Winter et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49531. High-quality 16S rRNA sequence S000003485 (RDP), Y18187 (Genbank). N4Lid DOI: 10.1601/nm.3980
- Clostridium oroticum*^{AL} (Wachsman and Barker 1954) Cato et al. 1968. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 13619. High-quality 16S rRNA sequence S000436473 (RDP), M59109 (Genbank). N4Lid DOI: 10.1601/nm.3981
- Clostridium papyrosolvens*^{VP} Madden et al. 1982. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35413. High-quality 16S rRNA sequence S000006587 (RDP), X71852 (Genbank). N4Lid DOI: 10.1601/nm.3983
- Clostridium paradoxum*^{VP} Li et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51510. High-quality 16S rRNA sequence S000010790 (RDP), Z69942 (Genbank). N4Lid DOI: 10.1601/nm.3984
- Clostridium paraputrificum*^{AL} (Bienstock 1906) Snyder 1936. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25780. High-quality 16S rRNA sequence S000128907 (RDP), X75907 (Genbank). N4Lid DOI: 10.1601/nm.3986
- Clostridium pascui*^{VP} Wilde et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10365. High-quality 16S rRNA sequence S000003885 (RDP), X96736 (Genbank). N4Lid DOI: 10.1601/nm.3987
- Clostridium pasteurianum*^{AL} Winogradsky 1895. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 6013. High-quality 16S rRNA sequence S000016649 (RDP), M23930 (Genbank). N4Lid DOI: 10.1601/nm.3988
- Clostridium peptidivorans*^{VP} Mechichi et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12505. High-quality 16S rRNA sequence S000388299 (RDP), AF156796 (Genbank). N4Lid DOI: 10.1601/nm.3989
- Clostridium perfringens*^{AL} (Veillon and Zuber 1898) Hauduroy et al. 1937. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 13124. High-quality 16S rRNA sequence S000436468 (RDP), M59103 (Genbank). GOLD ID: Gc00076. GCAT ID: 000534_GCAT. Entrez genome id: 79. Sequenced strain: 13 is from a non-type strain. Genome

sequencing is completed. Number of genomes of this species sequenced 3 (GOLD) 3 (NCBI).
N4Lid DOI: 10.1601/nm.3991

Clostridium phytofermentans^{VP} Warnick et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700394. High-quality 16S rRNA sequence S000735463 (RDP), GOLD ID: Gi00162. GCAT ID: 000967_GCAT. Entrez genome id: 16184. Sequenced strain: ATCC 700394 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.3993

Clostridium piliforme^{VP} (ex Tyzzer 1917) Duncan et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 8809. High-quality 16S rRNA sequence S000016635 (RDP), L07416 (Genbank). N4Lid DOI: 10.1601/nm.3994

Clostridium polysaccharolyticum^{VP} (van Gylswyk 1981) van Gylswyk et al. 1983. <==
Fusobacterium polysaccharolyticum (basonym). Synonym links through N4Lid: 10.1601/ex.8364. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33142. High-quality 16S rRNA sequence S000011936 (RDP), X71858 (Genbank). N4Lid DOI: 10.1601/nm.3995

† *Fusobacterium polysaccharolyticum*^{VP} van Gylswyk 1981. ==> *Clostridium polysaccharolyticum* (new combination). Synonym links through N4Lid: 10.1601/ex.8364. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33142. High-quality 16S rRNA sequence S000011936 (RDP), X71858 (Genbank). N4Lid DOI: 10.1601/nm.8364

Clostridium populeti^{VP} Sleat and Mah 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35295. High-quality 16S rRNA sequence S000015326 (RDP), X71853 (Genbank). N4Lid DOI: 10.1601/nm.3996

Clostridium propionicum^{AL} Cardon and Barker 1946. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25522. High-quality 16S rRNA sequence S000260336 (RDP), X77841 (Genbank). N4Lid DOI: 10.1601/nm.3997

Clostridium proteoclasticum^{VP} Attwood et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51982. High-quality 16S rRNA sequence S000437528 (RDP), U37378 (Genbank). N4Lid DOI: 10.1601/nm.3998

Clostridium proteolyticum^{VP} Jain and Zeikus 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49002. High-quality 16S rRNA sequence S000260571 (RDP), X73448 (Genbank). N4Lid DOI: 10.1601/nm.3999

Clostridium psychrophilum^{VP} Spring et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-582. High-quality 16S rRNA sequence S000002328 (RDP), AJ297443 (Genbank). N4Lid DOI: 10.1601/nm.4000

Clostridium puniceum^{VP} Lund et al. 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43978. High-quality 16S rRNA sequence S000021696 (RDP), X71857 (Genbank). N4Lid DOI: 10.1601/nm.4001

Clostridium purinilyticum^{VP} corrig. Dürre et al. 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33906. High-quality 16S rRNA sequence S000436540 (RDP), M60491 (Genbank). N4Lid DOI: 10.1601/nm.4002

Clostridium putrefaciens^{AL} (McBryde 1911) Sturges and Drake 1927. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25786. High-quality 16S rRNA sequence S000387305 (RDP), AF127024 (Genbank). N4Lid DOI: 10.1601/nm.4003

† *Clostridium putrificum*^{AL} (Trevisan 1889) Reddish and Rettger 1922. (Rejected name). Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25784. N4Lid DOI: 10.1601/nm.4004

Clostridium quinii^{VP} Svensson et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 6736. High-quality 16S rRNA sequence S000260250 (RDP), X76745 (Genbank). N4Lid DOI: 10.1601/nm.4006

Clostridium ramosum^{AL} (Veillon and Zuber 1898) Holdeman et al. 1971. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25582. High-quality 16S rRNA sequence S000260570 (RDP), X73440 (Genbank). N4Lid DOI: 10.1601/nm.4007

Clostridium rectum^{AL} (Heller 1922) Holdeman and Moore 1972. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25751. High-quality 16S rRNA sequence S000260980 (RDP), X77850 (Genbank). N4Lid DOI: 10.1601/nm.4008

Clostridium roseum^{VP} (ex McCoy and McClung 1935) Cato et al. 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17797. High-quality 16S rRNA sequence S000022312 (RDP), Y18171 (Genbank). N4Lid DOI: 10.1601/nm.4009

Clostridium saccharobutylicum^{VP} Keis et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-117. High-quality 16S rRNA sequence S000437206 (RDP), U16147 (Genbank). N4Lid DOI: 10.1601/nm.4010

Clostridium saccharolyticum^{VP} Murray et al. 1982. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35040. High-quality 16S rRNA sequence S000001961 (RDP), Y18185 (Genbank). N4Lid DOI: 10.1601/nm.4012

Clostridium saccharoperbutylacetonicum^{VP} Keis et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27021. High-quality 16S rRNA sequence S000437203 (RDP), U16122 (Genbank). N4Lid DOI: 10.1601/nm.4011

† *Clostridium absonum*^{AL} Nakamura et al. 1973. ≈ *Clostridium sardiniense* (earlier heterotypic synonym), links through 10.1601./nm.4013. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27555. High-quality 16S rRNA sequence S000260489 (RDP), X77842 (Genbank). N4Lid DOI: 10.1601/nm.3880

Clostridium sardiniense^{AL} corrig. Prévot 1938. ≈ *Clostridium absonum* (later heterotypic synonym), links through 10.1601./nm.4013. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33455. High-quality 16S rRNA sequence S000260201 (RDP), X73446 (Genbank). N4Lid DOI: 10.1601/nm.4013

Clostridium sartagoforme^{AL} corrig. Partansky and Henry 1935. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25778. High-quality 16S rRNA sequence S000004297 (RDP), Y18175 (Genbank). N4Lid DOI: 10.1601/nm.4014

Clostridium scatologenes^{AL} (Weinberg and Ginsbourg 1927) Prévot 1948. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25775. High-quality 16S rRNA sequence S000641401 (RDP), M59104 (Genbank). N4Lid DOI: 10.1601/nm.4015

Clostridium schirmacherense^{VP} Alam et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17394. High-quality 16S rRNA sequence S000608913 (RDP), AM114453 (Genbank). N4Lid 10.1601/nm.9966

Clostridium scindens^{VP} Morris et al. 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35704. High-quality 16S rRNA sequence S000390284 (RDP), AF262238 (Genbank). GOLD ID: Gi01716. GCAT ID: 000659_GCAT. Sequenced strain: ATCC 35704 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.4016

Clostridium septicum^{AL} (Macé 1889) Ford 1927. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 12464. High-quality 16S rRNA sequence S000437948 (RDP), U59278 (Genbank). N4Lid DOI: 10.1601/nm.4017

Clostridium sordellii^{AL} (Hall and Scott 1927) Prévot 1938. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 9714. High-quality 16S rRNA sequence S000436470 (RDP), M59105 (Genbank). N4Lid DOI: 10.1601/nm.4018

Clostridium sphenoides^{AL} (Douglas et al. 1919) Bergey et al. 1923. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19403. High-quality 16S rRNA sequence S000260075 (RDP), X73449 (Genbank). N4Lid DOI: 10.1601/nm.4019

Clostridium spiroforme^{AL} Kaneuchi et al. 1979. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29900. High-quality 16S rRNA sequence S000130514 (RDP), X75908 (Genbank). N4Lid DOI: 10.1601/nm.4020

Clostridium sporogenes^{AL} (Metchnikoff 1908) Bergey et al. 1923. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 3584. High-quality 16S rRNA sequence S000260539 (RDP), X68189 (Genbank). N4Lid DOI: 10.1601/nm.4021

Clostridium sporosphaeroides^{AL} Soriano and Soriano 1948. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25781. High-quality 16S rRNA sequence S000436479 (RDP), M59116 (Genbank). N4Lid DOI: 10.1601/nm.4022

Clostridium stercorarium subsp. leptospartum^{VP} (Toda et al. 1989) Fardeau et al. 2001. <== *Thermobacteroides leptospartum* (basonym). Synonym links through N4Lid: 10.1601/ex.4024. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC

51338. High-quality 16S rRNA sequence S000390346 (RDP), AF266461 (Genbank). N4Lid DOI: 10.1601/nm.4024

† *Thermobacteroides leptospartum*^{VP} Toda et al. 1989. ==> *Clostridium stercorarium* subsp. *leptospartum* (new combination). Synonym links through N4Lid: 10.1601/ex.4024. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51338. High-quality 16S rRNA sequence S000390346 (RDP), AF266461 (Genbank). N4Lid 10.1601/nm.9159

Clostridium stercorarium subsp. *stercorarium*^{VP} Madden 1983. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35414. High-quality 16S rRNA sequence S000414352 (RDP), L09174 (Genbank). N4Lid DOI: 10.1601/nm.4023

Clostridium stercorarium subsp. *thermolacticum*^{VP} (Le Ruyet et al. 1988) Fardeau et al. 2001. <== *Clostridium thermolacticum* (basonym). Synonym links through N4Lid: 10.1601/ex.4040. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43739. High-quality 16S rRNA sequence S000012708 (RDP), X72870 (Genbank). N4Lid DOI: 10.1601/nm.4025

† *Clostridium thermolacticum*^{VP} Le Ruyet et al. 1988. ==> *Clostridium stercorarium* subsp. *thermolacticum* (new combination). Synonym links through N4Lid: 10.1601/ex.4040. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43739. High-quality 16S rRNA sequence S000012708 (RDP), X72870 (Genbank). N4Lid DOI: 10.1601/nm.4040

Clostridium sticklandii^{AL} Stadtman and McClung 1957. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 12662. N4Lid DOI: 10.1601/nm.4026

Clostridium straminisolvens^{VP} Kato et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16021. High-quality 16S rRNA sequence S000439515 (RDP), AB125279 (Genbank). N4Lid DOI: 10.1601/nm.8547

Clostridium subterminale^{AL} (Hall and Whitehead 1927) Spray 1948. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25774. High-quality 16S rRNA sequence S000414709 (RDP), L37595 (Genbank). N4Lid DOI: 10.1601/nm.4027

Clostridium symbiosum^{AL} (Stevens 1956) Kaneuchi et al. 1976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 14940. High-quality 16S rRNA sequence S000436475 (RDP), M59112 (Genbank). GOLD ID: Gi01717. GCAT ID: 000660_GCAT. Entrez genome id: 18183. Sequenced strain: ATCC 14940 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4028

Clostridium termitidis^{VP} Hethener et al. 1992. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51846. N4Lid DOI: 10.1601/nm.4029

Clostridium tertium^{AL} (Henry 1917) Bergey et al. 1923. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 14573. High-quality 16S rRNA sequence S000011940 (RDP), AJ245413 (Genbank). N4Lid DOI: 10.1601/nm.4030

Clostridium tetani^{AL} (Flügge 1886) Bergey et al. 1923. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19406. High-quality 16S rRNA sequence S000260778 (RDP), X74770 (Genbank). GOLD ID: Gc00120. GCAT ID: 000490_GCAT. Entrez genome id: 81. Sequenced strain: Massachusetts E88 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4031

Clostridium tetanomorphum^{VP} (ex Bulloch et al. 1919) Wilde et al. 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49273. N4Lid DOI: 10.1601/nm.4032

Clostridium thermoalcaliphilum^{VP} Li et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51508. High-quality 16S rRNA sequence S000414377 (RDP), L11304 (Genbank). N4Lid DOI: 10.1601/nm.4035

Clostridium thermobutyricum^{VP} Wiegel et al. 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49875. N4Lid DOI: 10.1601/nm.4036

Clostridium thermocellum^{AL} Viljoen et al. 1926. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27405. High-quality 16S rRNA sequence S000414351 (RDP), L09173 (Genbank). GOLD ID: Gc00510. GCAT ID: 000973_GCAT. Entrez genome id: 314. Sequenced strain: ATCC 27405 is type material. Genome sequencing is

completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4037

Clostridium thermopalmarium^{VP} Soh et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51427. High-quality 16S rRNA sequence S000008489 (RDP), X72869 (Genbank). N4Lid DOI: 10.1601/nm.4041

Clostridium thermopapyrolyticum^{VP} Méndez et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: UBA 305. N4Lid DOI: 10.1601/nm.4042

Clostridium thermosuccinogenes^{VP} Drent et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 5807. High-quality 16S rRNA sequence S000001965 (RDP), Y18180 (Genbank). N4Lid DOI: 10.1601/nm.4044

Clostridium thiosulfatireducens^{VP} Hernández-Eugenio et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13105. High-quality 16S rRNA sequence S000391440 (RDP), AF317650 (Genbank). N4Lid DOI: 10.1601/nm.4046

Clostridium tyrobutyricum^{AL} van Beynum and Pette 1935. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25755. High-quality 16S rRNA sequence S000436476 (RDP), M59113 (Genbank). N4Lid DOI: 10.1601/nm.4047

Clostridium uliginosum^{VP} Matthies et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-53. High-quality 16S rRNA sequence S000131270 (RDP), AJ276992 (Genbank). N4Lid DOI: 10.1601/nm.4048

Clostridium ultunense^{VP} Schnürer et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700254. High-quality 16S rRNA sequence S000130690 (RDP), Z69293 (Genbank). N4Lid DOI: 10.1601/nm.4049

Clostridium vincentii^{VP} Mountfort et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10228. High-quality 16S rRNA sequence S000014235 (RDP), X97432 (Genbank). N4Lid DOI: 10.1601/nm.4051

Clostridium viride^{VP} Buckel et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43977. High-quality 16S rRNA sequence S000008119 (RDP), X81125 (Genbank). N4Lid DOI: 10.1601/nm.4052

Clostridium xylanolyticum^{VP} Rogers and Baecker 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49623. High-quality 16S rRNA sequence S000012710 (RDP), X71855 (Genbank). N4Lid DOI: 10.1601/nm.4053

Clostridium xylanovorans^{VP} Mechichi et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12503. High-quality 16S rRNA sequence S000429249 (RDP), AF116920 (Genbank). N4Lid DOI: 10.1601/nm.4054

Genus *Acetanaerobacterium*^{VP} Chen and Dong 2004. N4Lid DOI: 10.1601/nm.8432

Acetanaerobacterium elongatum^{VP} Chen and Dong 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 12359. High-quality 16S rRNA sequence S000462238 (RDP), AY487928 (Genbank). N4Lid DOI: 10.1601/nm.8433

Genus *Acetivibrio*^{VP} Patel et al. 1980. N4Lid DOI: 10.1601/nm.4055

Acetivibrio cellulolyticus^{VP} Patel et al. 1980. ≈ *Acetivibrio cellulosolvans* (later heterotypic synonym), links through 10.1601/nm.4056. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33288. High-quality 16S rRNA sequence S000414641 (RDP), L35516 (Genbank). N4Lid DOI: 10.1601/nm.4056

† *Acetivibrio cellulosolvans*^{VP} Khan et al. 1984. ≈ *Acetivibrio cellulolyticus* (earlier heterotypic synonym), links through 10.1601/nm.4056. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35928. High-quality 16S rRNA sequence S000414640 (RDP), L35515 (Genbank). N4Lid DOI: 10.1601/nm.4057

Acetivibrio ethanolgignens^{VP} Robinson and Ritchie 1981. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33324. N4Lid DOI: 10.1601/nm.4058

Acetivibrio multivorans^{VP} Tanaka et al. 1992. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49731. N4Lid DOI: 10.1601/nm.4059

Genus *Acidaminobacter*^{VP} Stams and Hansen 1985. N4Lid DOI: 10.1601/nm.4060

- Acidaminobacter hydrogeniformans*^{VP} Stams and Hansen 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2784. High-quality 16S rRNA sequence S000387151 (RDP), AF016691 (Genbank). N4Lid DOI: 10.1601/nm.4061
- Genus *Alkaliphilus***^{VP} Takai et al. 2001. N4Lid DOI: 10.1601/nm.4062
- Alkaliphilus transvaalensis*^{VP} Takai et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700919. High-quality 16S rRNA sequence S000018099 (RDP), AB037677 (Genbank). N4Lid DOI: 10.1601/nm.4063
- Alkaliphilus crotonatoxidans*^{VP} Cao et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 11672. High-quality 16S rRNA sequence S000394644 (RDP), AF467248 (Genbank). N4Lid DOI: 10.1601/nm.4064
- Genus *Anaerobacter***^{VP} Duda et al. 1996. N4Lid DOI: 10.1601/nm.4065
- Anaerobacter polyendosporus*^{VP} Duda et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49043. High-quality 16S rRNA sequence S000001545 (RDP), Y18189 (Genbank). N4Lid DOI: 10.1601/nm.4066
- Genus *Anaerotruncus***^{VP} Lawson et al. 2004. N4Lid DOI: 10.1601/nm.4067
- Anaerotruncus colihominis*^{VP} Lawson et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 45055. High-quality 16S rRNA sequence S000277024 (RDP), AJ315980 (Genbank). N4Lid DOI: 10.1601/nm.4068
- Genus *Anoxynatronum***^{VP} Garnova et al. 2003. N4Lid DOI: 10.1601/nm.4069
- Anoxynatronum sibiricum*^{VP} Garnova and Zhilina 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15060. High-quality 16S rRNA sequence S000351192 (RDP), AF522323 (Genbank). N4Lid DOI: 10.1601/nm.4070
- Genus *Bryantella***^{VP} Wolin et al. 2004. N4Lid DOI: 10.1601/nm.4071
- Bryantella formatexigens*^{VP} Wolin et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14469. High-quality 16S rRNA sequence S000149329 (RDP), AJ318527 (Genbank). N4Lid DOI: 10.1601/nm.4072
- Genus *Caminicella***^{VP} Alain et al. 2002. N4Lid DOI: 10.1601/nm.4073
- Caminicella sporogenes*^{VP} Alain et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14501. High-quality 16S rRNA sequence S000089377 (RDP), AJ320233 (Genbank). N4Lid DOI: 10.1601/nm.4074
- Genus *Caloramator***^{VP} Collins et al. 1994. N4Lid DOI: 10.1601/nm.4075
- Caloramator fervidus*^{VP} (Patel et al. 1987) Collins et al. 1994. <== *Clostridium fervidum* (basonym). Synonym links through N4Lid: 10.1601/ex.3932. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43204. High-quality 16S rRNA sequence S000414365 (RDP), L09187 (Genbank). N4Lid DOI: 10.1601/nm.4076
- † *Clostridium fervidum*^{VP} corrig. Patel et al. 1987. ==> *Caloramator fervidus* (new combination). Synonym links through N4Lid: 10.1601/ex.3932. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43204. High-quality 16S rRNA sequence S000414365 (RDP), L09187 (Genbank). N4Lid DOI: 10.1601/nm.3932
- Caloramator coolhaasii*^{VP} Plugge et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12679. High-quality 16S rRNA sequence S000428920 (RDP), AF104215 (Genbank). N4Lid DOI: 10.1601/nm.4077
- Caloramator indicus*^{VP} Chrisostomos et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ACM 3982. High-quality 16S rRNA sequence S000013058 (RDP), X75788 (Genbank). N4Lid DOI: 10.1601/nm.4078
- Caloramator proteoclasticus*^{VP} Tarlera et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10124. High-quality 16S rRNA sequence S000381335 (RDP), X90488 (Genbank). N4Lid DOI: 10.1601/nm.4079
- Caloramator viterbiensis*^{VP} corrig. Seyfried et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC PTA 584. High-quality 16S rRNA sequence S000388740 (RDP), AF181848 (Genbank). N4Lid DOI: 10.1601/nm.4080
- Genus *Caloranaerobacter***^{VP} Wery et al. 2001. N4Lid DOI: 10.1601/nm.4081

Caloranaerobacter azorensis^{VP} Wery et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13643. High-quality 16S rRNA sequence S000130056 (RDP), AJ272422 (Genbank). N4Lid DOI: 10.1601/nm.4082

Genus *Coprobacillus*^{VP} Kageyama and Benno 2000. N4Lid DOI: 10.1601/nm.4083

Coprobacillus cateniformis^{VP} corrig. Kageyama and Benno 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CIP 106690. High-quality 16S rRNA sequence S000382866 (RDP), AB030219 (Genbank). N4Lid DOI: 10.1601/nm.4084

Genus *Dorea*^{VP} Taras et al. 2002. N4Lid DOI: 10.1601/nm.4085

Dorea formicigenerans^{VP} (Holdeman and Moore 1974) Taras et al. 2002. <== *Eubacterium formicigenerans* (basonym). Synonym links through N4Lid: 10.1601/ex.4250. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27755. High-quality 16S rRNA sequence S000414608 (RDP), L34619 (Genbank). GOLD ID: Gi01722. GCAT ID: 000667_GCAT. Entrez genome id: 18155. Sequenced strain: ATCC 27755 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4086

† *Eubacterium formicigenerans*^{AL} Holdeman and Moore 1974. ==> *Dorea formicigenerans* (new combination). Synonym links through N4Lid: 10.1601/ex.4250. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27755. High-quality 16S rRNA sequence S000414608 (RDP), L34619 (Genbank). GOLD ID: Gi01722. GCAT ID: 000667_GCAT. Entrez genome id: 18155. Sequenced strain: ATCC 27755 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4250

Dorea longicatena^{VP} Taras et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13814. High-quality 16S rRNA sequence S000020526 (RDP), AJ132842 (Genbank). GOLD ID: Gi01723. GCAT ID: 000668_GCAT. Entrez genome id: 18157. Sequenced strain: DSM 13814 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4087

Genus *Ethanoligenens*^{VP} Xing et al. 2006. N4Lid 10.1601/nm.9977

Ethanoligenens harbinense^{VP} Xing et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 12961. High-quality 16S rRNA sequence S000593582 (RDP), AY295777 (Genbank). N4Lid 10.1601/nm.9976

Genus *Faecalibacterium*^{VP} Duncan et al. 2002. N4Lid DOI: 10.1601/nm.4088

Faecalibacterium prausnitzii^{VP} (Hauduroy et al. 1937) Duncan et al. 2002. <== *Fusobacterium prausnitzii* (basonym). Synonym links through N4Lid: 10.1601/ex.8365. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27768. High-quality 16S rRNA sequence S000128478 (RDP), AJ413954 (Genbank). GOLD ID: Gi01728. GCAT ID: 000673_GCAT. Entrez genome id: 18199. Sequenced strain: A2-165 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 2 (GOLD) 2 (NCBI). N4Lid DOI: 10.1601/nm.4089

† *Fusobacterium prausnitzii*^{AL} (Hauduroy et al. 1937) Moore and Holdeman 1970. ==> *Faecalibacterium prausnitzii* (new combination). Synonym links through N4Lid: 10.1601/ex.8365. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27768. High-quality 16S rRNA sequence S000128478 (RDP), AJ413954 (Genbank). GOLD ID: Gi01728. GCAT ID: 000673_GCAT. Entrez genome id: 18199. Sequenced strain: A2-165 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 2 (GOLD) 2 (NCBI). N4Lid DOI: 10.1601/nm.8365

Genus *Fastidiosipila*^{VP} Falsen et al. 2005. N4Lid 10.1601/nm.9328

Fastidiosipila sanguinis^{VP} Falsen et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 47711. High-quality 16S rRNA sequence S000539435 (RDP), AJ575187 (Genbank). N4Lid 10.1601/nm.9327

Genus *Garciella*^{VP} Miranda-Tello et al. 2003. N4Lid DOI: 10.1601/nm.4090

Garciella nitratireducens^{VP} Miranda-Tello et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15102. High-quality 16S rRNA sequence S000399957 (RDP), AY176772 (Genbank). N4Lid DOI: 10.1601/nm.4091

Genus *Gracilibacter*^{VP} Lee et al. 2006. N4Lid DOI: 10.1601/nm.10278

- Gracilibacter thermotolerans*^{VP} Lee et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1219. High-quality 16S rRNA sequence S000721545 (RDP), DQ117465 (Genbank). N4Lid DOI: 10.1601/nm.10277
- Genus *Guggenheimella***^{VP} Wyss et al. 2005. N4Lid 10.1601/nm.9311
- Guggenheimella bovis*^{VP} Wyss et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15657. High-quality 16S rRNA sequence S000500750 (RDP), AY272039 (Genbank). N4Lid 10.1601/nm.9310
- Genus *Hespellia***^{VP} Whitehead et al. 2004. N4Lid DOI: 10.1601/nm.4092
- Hespellia stercorisuis*^{VP} Whitehead et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-677. High-quality 16S rRNA sequence S000394234 (RDP), AF445264 (Genbank). N4Lid DOI: 10.1601/nm.4093
- Hespellia porcina*^{VP} Whitehead et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-674. High-quality 16S rRNA sequence S000394232 (RDP), AF445239 (Genbank). N4Lid DOI: 10.1601/nm.4094
- Genus *Natronincola***^{VP} corrig. Zhilina et al. 1999. N4Lid DOI: 10.1601/nm.4095
- Natronincola histidinovorans*^{VP} corrig. Zhilina et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11416. High-quality 16S rRNA sequence S000017014 (RDP), Y16716 (Genbank). N4Lid DOI: 10.1601/nm.4096
- Genus *Oxobacter***^{VP} Collins et al. 1994. N4Lid DOI: 10.1601/nm.4097
- Oxobacter pfennigii*^{VP} (Krumholz and Bryant 1985) Collins et al. 1994. <== *Clostridium pfennigii* (basonym). Synonym links through N4Lid: 10.1601/ex.3992. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43583. High-quality 16S rRNA sequence S000260541 (RDP), X77838 (Genbank). N4Lid DOI: 10.1601/nm.4098
- † *Clostridium pfennigii*^{VP} Krumholz and Bryant 1985. ==> *Oxobacter pfennigii* (new combination). Synonym links through N4Lid: 10.1601/ex.3992. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43583. High-quality 16S rRNA sequence S000260541 (RDP), X77838 (Genbank). N4Lid DOI: 10.1601/nm.3992
- Genus *Parasporobacterium***^{VP} Lomans et al. 2004. N4Lid DOI: 10.1601/nm.4099
- Parasporobacterium paucivorans*^{VP} Lomans et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15970. High-quality 16S rRNA sequence S000022775 (RDP), AJ272036 (Genbank). N4Lid DOI: 10.1601/nm.4100
- Genus *Sarcina***^{AL} Goodsir 1842. N4Lid DOI: 10.1601/nm.4101
- Sarcina ventriculi*^{AL} Goodsir 1842. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19633. High-quality 16S rRNA sequence S000014690 (RDP), X76649 (Genbank). N4Lid DOI: 10.1601/nm.4102
- Sarcina maxima*^{AL} Lindner 1888. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33910. High-quality 16S rRNA sequence S000012021 (RDP), X76650 (Genbank). N4Lid DOI: 10.1601/nm.4103
- Genus *Soehngenia***^{VP} Parshina et al. 2003. N4Lid DOI: 10.1601/nm.4104
- Soehngenia saccharolytica*^{VP} Parshina et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-502. High-quality 16S rRNA sequence S000408089 (RDP), AY353956 (Genbank). N4Lid DOI: 10.1601/nm.4105
- Genus *Sporacetigenium***^{VP} Chen et al. 2006. N4Lid 10.1601/nm.9968
- Sporacetigenium mesophilum*^{VP} Chen et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16796. High-quality 16S rRNA sequence S000374970 (RDP), AY682207 (Genbank). N4Lid 10.1601/nm.9967
- Genus *Sporobacter***^{VP} Grech-Mora et al. 1996. N4Lid DOI: 10.1601/nm.4106
- Sporobacter termitidis*^{VP} Grech-Mora et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10068. High-quality 16S rRNA sequence S000000835 (RDP), Z49863 (Genbank). N4Lid DOI: 10.1601/nm.4107
- Genus *Subdoligranulum***^{VP} Holmstrøm et al. 2004. N4Lid 10.1601/nm.8945
- Subdoligranulum variabile*^{VP} Holmstrøm et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15176. High-quality 16S rRNA sequence

S000416814 (RDP), AJ518869 (Genbank). GOLD ID: Gi01708. GCAT ID: 000651_GCAT.
 Entrez genome id: 18181. Sequenced strain: DSM 15176 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid 10.1601/nm.8946

Genus *Tepidibacter* ^{VP} Slobodkin et al. 2003. N4Lid DOI: 10.1601/nm.4108

Tepidibacter thalassicus ^{VP} Slobodkin et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15285. High-quality 16S rRNA sequence S000398603 (RDP), AY158079 (Genbank). N4Lid DOI: 10.1601/nm.4109

Tepidibacter formicigenes ^{VP} Urios et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15518. High-quality 16S rRNA sequence S000404544 (RDP), AY245527 (Genbank). N4Lid DOI: 10.1601/nm.4110

Genus *Tepidimicrobium* ^{VP} Slobodkin et al. 2006. N4Lid 10.1601/nm.9882

Tepidimicrobium ferriphilum ^{VP} Slobodkin et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16624. High-quality 16S rRNA sequence S000372448 (RDP), AY656718 (Genbank). N4Lid 10.1601/nm.9881

Genus *Thermobrachium* ^{VP} Engle et al. 1996. N4Lid DOI: 10.1601/nm.4111

Thermobrachium celere ^{VP} Engle et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700318. High-quality 16S rRNA sequence S000381419 (RDP), X99238 (Genbank). N4Lid DOI: 10.1601/nm.4112

Genus *Thermohalobacter* ^{VP} Cayol et al. 2000. N4Lid DOI: 10.1601/nm.4113

Thermohalobacter berrensis ^{VP} Cayol et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CNCM 105955. High-quality 16S rRNA sequence S000429072 (RDP), AF113543 (Genbank). N4Lid DOI: 10.1601/nm.4114

Genus *Tindallia* ^{VP} Kevbrin et al. 1999. N4Lid DOI: 10.1601/nm.4115

Tindallia magadiensis ^{VP} corrig. Kevbrin et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10318. High-quality 16S rRNA sequence S000016957 (RDP), Y15626 (Genbank). N4Lid DOI: 10.1601/nm.4116

Tindallia californiensis ^{VP} Pikuta et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-393. High-quality 16S rRNA sequence S000539196 (RDP), AF373919 (Genbank). N4Lid DOI: 10.1601/nm.4117

Family "Lachnospiraceae" N4Lid DOI: 10.1601/nm.4118

Genus *Lachnospira* ^{AL} Bryant and Small 1956. N4Lid DOI: 10.1601/nm.4119

Lachnospira multipara ^{AL} corrig. Bryant and Small 1956. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19207. N4Lid DOI: 10.1601/nm.4120

Lachnospira pectinoschiza ^{VP} Cornick et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49827. High-quality 16S rRNA sequence S000414441 (RDP), L14675 (Genbank). N4Lid DOI: 10.1601/nm.4121

Genus *Acetitomaculum* ^{VP} Greening and Leedle 1995. N4Lid DOI: 10.1601/nm.4122

Acetitomaculum ruminis ^{VP} Greening and Leedle 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43876. High-quality 16S rRNA sequence S000436448 (RDP), M59083 (Genbank). N4Lid DOI: 10.1601/nm.4123

Genus *Anaerofilum* ^{VP} Zellner et al. 1996. N4Lid DOI: 10.1601/nm.4124

Anaerofilum pentosovorans ^{VP} Zellner et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700251. High-quality 16S rRNA sequence S000381409 (RDP), X97852 (Genbank). N4Lid DOI: 10.1601/nm.4125

Anaerofilum agile ^{VP} Zellner et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700250. High-quality 16S rRNA sequence S000381410 (RDP), X98011 (Genbank). N4Lid DOI: 10.1601/nm.4126

Genus *Anaerostipes* ^{VP} Schwiertz et al. 2002. N4Lid DOI: 10.1601/nm.4127

Anaerostipes caccae ^{VP} Schwiertz et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14662. High-quality 16S rRNA sequence S000088221 (RDP), AJ270487 (Genbank). GOLD ID: Gi01713. GCAT ID: 000656_GCAT.
 Entrez genome id: 18213. Sequenced strain: DSM 14662 is type material. Genome sequencing is

incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4128

Genus *Butyrivibrio*^{AL} Bryant and Small 1956. N4Lid DOI: 10.1601/nm.4129

Butyrivibrio fibrisolvens^{AL} Bryant and Small 1956. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19171. High-quality 16S rRNA sequence S000437588 (RDP), U41172 (Genbank). N4Lid DOI: 10.1601/nm.4130

Butyrivibrio crossotus^{AL} Moore et al. 1976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29175. N4Lid DOI: 10.1601/nm.4131

Butyrivibrio hungatei^{VP} Kopecný et al. 2003</authority> Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-456. High-quality 16S rRNA sequence S000130679 (RDP), AJ428553 (Genbank). N4Lid DOI: 10.1601/nm.4132

Genus *Catenibacterium*^{VP} Kageyama and Benno 2000. N4Lid DOI: 10.1601/nm.4133

Catenibacterium mitsuokai^{VP} Kageyama and Benno 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CIP 106738. High-quality 16S rRNA sequence S000022658 (RDP), AB030224 (Genbank). N4Lid DOI: 10.1601/nm.4134

Genus *Catonella*^{VP} Moore and Moore 1994. N4Lid DOI: 10.1601/nm.4135

Catonella morbi^{VP} Moore and Moore 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51271. High-quality 16S rRNA sequence S000003483 (RDP), X87151 (Genbank). N4Lid DOI: 10.1601/nm.4136

Genus *Coprococcus*^{AL} Holdeman and Moore 1974. N4Lid DOI: 10.1601/nm.4137

Coprococcus eutactus^{AL} Holdeman and Moore 1974. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27759. High-quality 16S rRNA sequence S000413508 (RDP), D14148 (Genbank). GOLD ID: Gi01721. GCAT ID: 000666_GCAT. Entrez genome id: 18187. Sequenced strain: ATCC 27759 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4138

Coprococcus catus^{AL} Holdeman and Moore 1974. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27761. High-quality 16S rRNA sequence S000383173 (RDP), AB038359 (Genbank). N4Lid DOI: 10.1601/nm.4139

Coprococcus comes^{AL} Holdeman and Moore 1974. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27758. N4Lid DOI: 10.1601/nm.4140

Genus *Johnsonella*^{VP} Moore and Moore 1994. N4Lid DOI: 10.1601/nm.4141

Johnsonella ignava^{VP} Moore and Moore 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51276. High-quality 16S rRNA sequence S000004757 (RDP), X87152 (Genbank). N4Lid DOI: 10.1601/nm.4142

Genus *Lachnobacterium*^{VP} Whitford et al. 2001. N4Lid DOI: 10.1601/nm.4143

Lachnobacterium bovis^{VP} Whitford et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-151. High-quality 16S rRNA sequence S000390937 (RDP), AF298663 (Genbank). N4Lid DOI: 10.1601/nm.4144

Genus *Oribacterium*^{VP} Carlier et al. 2004. N4Lid 10.1601/nm.8753

Oribacterium sinus^{VP} Carlier et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 48084. High-quality 16S rRNA sequence S000461126 (RDP), AY323228 (Genbank). N4Lid 10.1601/nm.8754

Genus *Pseudobutyrvibrio*^{VP} van Gylswyk et al. 1996. N4Lid DOI: 10.1601/nm.4145

Pseudobutyrvibrio ruminis^{VP} van Gylswyk et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9787. High-quality 16S rRNA sequence S000001622 (RDP), X95893 (Genbank). N4Lid DOI: 10.1601/nm.4146

Pseudobutyrvibrio xylanivorans^{VP} Kopecný et al. 2003</authority> Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-455. High-quality 16S rRNA sequence S000115293 (RDP), AJ428548 (Genbank). N4Lid DOI: 10.1601/nm.4147

Genus *Roseburia*^{VP} Stanton and Savage 1983. N4Lid DOI: 10.1601/nm.4148

Roseburia cecicola^{VP} Stanton and Savage 1983. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33874. High-quality 16S rRNA sequence S000414442 (RDP), L14676 (Genbank). N4Lid DOI: 10.1601/nm.4149

Roseburia intestinalis^{VP} Duncan et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14610. High-quality 16S rRNA sequence S000087730 (RDP), AJ312385 (Genbank). N4Lid DOI: 10.1601/nm.4150

Genus *Ruminococcus*^{AL} Sijpesteijn 1948. N4Lid DOI: 10.1601/nm.4151

Ruminococcus flavefaciens^{AL} Sijpesteijn 1948. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19208. High-quality 16S rRNA sequence S000436019 (RDP), L76603 (Genbank). GOLD ID: Gi00518. GCAT ID: 001437_GCAT. Sequenced strain: FD-1 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.4152

Ruminococcus albus^{AL} Hungate 1957. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27210. High-quality 16S rRNA sequence S000436014 (RDP), L76598 (Genbank). GOLD ID: Gi00517. GCAT ID: 001436_GCAT. Entrez genome id: 62. Sequenced strain: 8 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4153

Ruminococcus bromii^{AL} Moore et al. 1972. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27255. High-quality 16S rRNA sequence S000436016 (RDP), L76600 (Genbank). N4Lid DOI: 10.1601/nm.4154

Ruminococcus callidus^{AL} Holdeman and Moore 1974. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27760. High-quality 16S rRNA sequence S000436012 (RDP), L76596 (Genbank). GOLD ID: Gi01731. GCAT ID: 000676_GCAT. Entrez genome id: 18185. Sequenced strain: ATCC 27760 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4155

Ruminococcus gnavus^{AL} Moore et al. 1976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29149. High-quality 16S rRNA sequence S000413496 (RDP), D14136 (Genbank). GOLD ID: Gi01731. GCAT ID: 000676_GCAT. Entrez genome id: 18185. Sequenced strain: ATCC 29149 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4156

Ruminococcus hansenii^{VP} (Holdeman and Moore 1974) Ezaki et al. 1994. <== *Streptococcus hansenii* (basonym). Synonym links through N4Lid: 10.1601/ex.5645. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27752. High-quality 16S rRNA sequence S000413515 (RDP), D14155 (Genbank). N4Lid DOI: 10.1601/nm.4157

† *Streptococcus hansenii*^{AL} Holdeman and Moore 1974. ==> *Ruminococcus hansenii* (new combination). Synonym links through N4Lid: 10.1601/ex.5645. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27752. High-quality 16S rRNA sequence S000413515 (RDP), D14155 (Genbank). N4Lid DOI: 10.1601/nm.5645

Ruminococcus hydrogenotrophicus^{VP} Bernalier et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10507. High-quality 16S rRNA sequence S000005532 (RDP), X95624 (Genbank). N4Lid DOI: 10.1601/nm.4158

Ruminococcus lactaris^{AL} Moore et al. 1976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29176. High-quality 16S rRNA sequence S000436018 (RDP), L76602 (Genbank). N4Lid DOI: 10.1601/nm.4159

Ruminococcus luti^{VP} Simmering et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14534. High-quality 16S rRNA sequence S000539267 (RDP), AJ133124 (Genbank). N4Lid DOI: 10.1601/nm.4160

Ruminococcus obeum^{AL} Moore et al. 1976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29174. High-quality 16S rRNA sequence S000436017 (RDP), L76601 (Genbank). GOLD ID: Gi01732. GCAT ID: 000678_GCAT. Entrez genome id: 18147. Sequenced strain: ATCC 29174 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4161

Ruminococcus productus^{VP} (Prévot 1941) Ezaki et al. 1994. <== *Peptostreptococcus productus* (basonym). Synonym links through N4Lid: 10.1601/ex.4188. Source of type material

recommended for DOE sponsored genome sequencing by the JGI: ATCC 27340. High-quality 16S rRNA sequence S000413504 (RDP), D14144 (Genbank). N4Lid DOI: 10.1601/nm.4164

† *Peptostreptococcus productus*^{AL} (Prévot 1941) Smith 1957. ==> *Ruminococcus productus* (new combination). Synonym links through N4Lid: 10.1601/ex.4188. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27340. High-quality 16S rRNA sequence S000413504 (RDP), D14144 (Genbank). N4Lid DOI: 10.1601/nm.4188

Ruminococcus schinkii^{VP} Rieu-Lesme et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10518. High-quality 16S rRNA sequence S000019320 (RDP), X94965 (Genbank). N4Lid DOI: 10.1601/nm.4165

Ruminococcus torques^{AL} Holdeman and Moore 1974. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27756. High-quality 16S rRNA sequence S000413497 (RDP), D14137 (Genbank). GOLD ID: Gi01733. GCAT ID: 000679_GCAT. Entrez genome id: 18153. Sequenced strain: ATCC 27756 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4166

Genus *Shuttleworthia*^{VP} Downes et al. 2002. N4Lid DOI: 10.1601/nm.4167

Shuttleworthia satelles^{VP} Downes et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-774. High-quality 16S rRNA sequence S000393168 (RDP), AF399956 (Genbank). N4Lid DOI: 10.1601/nm.4168

Genus *Sporobacterium*^{VP} Mechichi et al. 1999. N4Lid DOI: 10.1601/nm.4169

Sporobacterium olearium^{VP} Mechichi et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12504. High-quality 16S rRNA sequence S000429246 (RDP), AF116854 (Genbank). N4Lid DOI: 10.1601/nm.4170

Family "*Peptostreptococcaceae*" N4Lid DOI: 10.1601/nm.4171

Genus *Peptostreptococcus*^{AL} Kluver and van Niel 1936. N4Lid DOI: 10.1601/nm.4172

Peptostreptococcus anaerobius^{AL} (Natvig 1905) Kluver and van Niel 1936. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27337. High-quality 16S rRNA sequence S000413510 (RDP), D14150 (Genbank). N4Lid DOI: 10.1601/nm.4173

Peptostreptococcus stomatis^{VP} Downes and Wade 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17678. High-quality 16S rRNA sequence S000634343 (RDP), DQ160208 (Genbank). N4Lid DOI: 10.1601/nm.9975

Genus *Anaerococcus*^{VP} Ezaki et al. 2001. N4Lid DOI: 10.1601/nm.4191

Anaerococcus prevotii^{VP} (Foubert and Douglas 1948) Ezaki et al. 2001. <== *Peptococcus prevotii* (basonym). Synonym links through N4Lid: 10.1601/ex.4311. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 9321. High-quality 16S rRNA sequence S000413499 (RDP), D14139 (Genbank). N4Lid DOI: 10.1601/nm.4192

† *Peptococcus prevotii*^{AL} (Foubert and Douglas 1948) Douglas 1957. ==> *Peptostreptococcus prevotii* (new combination). Synonym links through N4Lid: 10.1601/ex.4311. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 9321. High-quality 16S rRNA sequence S000413499 (RDP), D14139 (Genbank). N4Lid DOI: 10.1601/nm.4311

Peptostreptococcus prevotii^{VP} (Foubert and Douglas 1948) Ezaki et al. 1983. <== *Peptococcus prevotii* (basonym). *Anaerococcus prevotii* (new combination). Synonym links through N4Lid: 10.1601/ex.4311. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 9321. High-quality 16S rRNA sequence S000413499 (RDP), D14139 (Genbank). N4Lid DOI: 10.1601/nm.4187

Anaerococcus hydrogenalis^{VP} (Ezaki et al. 1990) Ezaki et al. 2001. <== *Peptostreptococcus hydrogenalis* (basonym). Synonym links through N4Lid: 10.1601/ex.4178. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49630. High-quality 16S rRNA sequence S000413500 (RDP), D14140 (Genbank). N4Lid DOI: 10.1601/nm.4193

† *Peptostreptococcus hydrogenalis*^{VP} Ezaki et al. 1990. ==> *Anaerococcus hydrogenalis* (new combination). Synonym links through N4Lid: 10.1601/ex.4178. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49630. High-quality 16S rRNA sequence S000413500 (RDP), D14140 (Genbank). N4Lid DOI: 10.1601/nm.4178

Anaerococcus lactolyticus^{VP} (Li et al. 1992) Ezaki et al. 2001. <== *Peptostreptococcus lactolyticus* (basonym). Synonym links through N4Lid: 10.1601/ex.4182. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51172. High-quality 16S rRNA sequence S000413514 (RDP), D14154 (Genbank). N4Lid DOI: 10.1601/nm.4194

† *Peptostreptococcus lactolyticus*^{VP} Li et al. 1992. ==> *Anaerococcus lactolyticus* (new combination). Synonym links through N4Lid: 10.1601/ex.4182. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51172. High-quality 16S rRNA sequence S000413514 (RDP), D14154 (Genbank). N4Lid DOI: 10.1601/nm.4182

Anaerococcus octavius^{VP} (Murdoch et al. 1997) Ezaki et al. 2001. <== *Peptostreptococcus octavius* (basonym). Synonym links through N4Lid: 10.1601/ex.4185. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700431. High-quality 16S rRNA sequence S000002016 (RDP), Y07841 (Genbank). N4Lid DOI: 10.1601/nm.4195

† *Peptostreptococcus octavius*^{VP} Murdoch et al. 1997. ==> *Anaerococcus octavius* (new combination). Synonym links through N4Lid: 10.1601/ex.4185. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700431. High-quality 16S rRNA sequence S000002016 (RDP), Y07841 (Genbank). N4Lid DOI: 10.1601/nm.4185

Anaerococcus tetradius^{VP} (Ezaki et al. 1983) Ezaki et al. 2001. <== *Peptostreptococcus tetradius* (basonym). Synonym links through N4Lid: 10.1601/ex.4189. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35098. High-quality 16S rRNA sequence S000413502 (RDP), D14142 (Genbank). N4Lid DOI: 10.1601/nm.4196

† *Peptostreptococcus tetradius*^{VP} (ex Choukévitch 1911) Ezaki et al. 1983. ==> *Anaerococcus tetradius* (new combination). Synonym links through N4Lid: 10.1601/ex.4189. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35098. High-quality 16S rRNA sequence S000413502 (RDP), D14142 (Genbank). N4Lid DOI: 10.1601/nm.4189

Anaerococcus vaginalis^{VP} (Li et al. 1992) Ezaki et al. 2001. <== *Peptostreptococcus vaginalis* (basonym). Synonym links through N4Lid: 10.1601/ex.4190. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51170. High-quality 16S rRNA sequence S000413506 (RDP), D14146 (Genbank). N4Lid DOI: 10.1601/nm.4197

† *Peptostreptococcus vaginalis*^{VP} Li et al. 1992. ==> *Anaerococcus vaginalis* (new combination). Synonym links through N4Lid: 10.1601/ex.4190. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51170. High-quality 16S rRNA sequence S000413506 (RDP), D14146 (Genbank). N4Lid DOI: 10.1601/nm.4190

Genus *Filifactor*^{VP} Collins et al. 1994. N4Lid DOI: 10.1601/nm.4198

Filifactor villosus^{VP} (Love et al. 1979) Collins et al. 1994. <== *Clostridium villosum* (basonym). Synonym links through N4Lid: 10.1601/ex.4050. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33388. High-quality 16S rRNA sequence S000260572 (RDP), X73452 (Genbank). N4Lid DOI: 10.1601/nm.4199

† *Clostridium villosum*^{AL} Love et al. 1979. ==> *Filifactor villosus* (new combination). Synonym links through N4Lid: 10.1601/ex.4050. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33388. High-quality 16S rRNA sequence S000260572 (RDP), X73452 (Genbank). N4Lid DOI: 10.1601/nm.4050

Filifactor alocis^{VP} (Cato et al. 1985) Jalava and Eerola 1999. <== *Fusobacterium alocis* (basonym). Synonym links through N4Lid: 10.1601/ex.8353. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35896. High-quality 16S rRNA sequence S000260567 (RDP), X55406 (Genbank). N4Lid DOI: 10.1601/nm.4200

† *Fusobacterium alocis*^{VP} Cato et al. 1985. ==> *Filifactor alocis* (new combination). Synonym links through N4Lid: 10.1601/ex.8353. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35896. High-quality 16S rRNA sequence S000260567 (RDP), X55406 (Genbank). N4Lid DOI: 10.1601/nm.8353

Genus *Finegoldia*^{VP} Murdoch and Shah 2000. N4Lid DOI: 10.1601/nm.4201

Finegoldia magna^{VP} (Prévot 1933) Murdoch and Shah 2000. <== *Peptococcus magnus* (basonym). Synonym links through N4Lid: 10.1601/ex.4310. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 15794. High-quality 16S rRNA sequence S000413509 (RDP), D14149 (Genbank). N4Lid DOI: 10.1601/nm.4202

Peptostreptococcus magnus^{VP} (Prévot 1933) Ezaki et al. 1983. <== *Peptococcus magnus* (basonym). *Finegoldia magna* (new combination). Synonym links through N4Lid: 10.1601/ex.4310. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 15794. High-quality 16S rRNA sequence S000413509 (RDP), D14149 (Genbank). N4Lid DOI: 10.1601/nm.4183

† *Peptococcus magnus*^{AL} (Prévot 1933) Holdeman and Moore 1972. ==> *Peptostreptococcus magnus* (new combination). Synonym links through N4Lid: 10.1601/ex.4310. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 15794. High-quality 16S rRNA sequence S000413509 (RDP), D14149 (Genbank). N4Lid DOI: 10.1601/nm.4310

Genus *Fusibacter*^{VP} Ravot et al. 1999. N4Lid DOI: 10.1601/nm.4203

Fusibacter paucivorans^{VP} Ravot et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700852. High-quality 16S rRNA sequence S000428078 (RDP), AF050099 (Genbank). N4Lid DOI: 10.1601/nm.4204

Genus *Gallicola*^{VP} Ezaki et al. 2001. N4Lid DOI: 10.1601/nm.4205

Gallicola barnesae^{VP} (Schiefer-Ullrich and Andreesen 1986) Ezaki et al. 2001. <== *Peptostreptococcus barnesae* (basonym). Synonym links through N4Lid: 10.1601/ex.4175. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49795. High-quality 16S rRNA sequence S000020798 (RDP), AB038361 (Genbank). N4Lid DOI: 10.1601/nm.4206

† *Peptostreptococcus barnesae*^{VP} Schiefer-Ullrich and Andreesen 1986. ==> *Gallicola barnesae* (new combination). Synonym links through N4Lid: 10.1601/ex.4175. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49795. High-quality 16S rRNA sequence S000020798 (RDP), AB038361 (Genbank). N4Lid DOI: 10.1601/nm.4175

Genus *Helcococcus*^{VP} Collins et al. 1993. N4Lid DOI: 10.1601/nm.4207

Helcococcus kunzii^{VP} Collins et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51366. High-quality 16S rRNA sequence S000006234 (RDP), X69837 (Genbank). N4Lid DOI: 10.1601/nm.4208

Helcococcus ovis^{VP} Collins et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-59. High-quality 16S rRNA sequence S000008147 (RDP), Y16279 (Genbank). N4Lid DOI: 10.1601/nm.4209

Helcococcus sueciensis^{VP} Collins et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 47334. High-quality 16S rRNA sequence S000543958 (RDP), AJ579914 (Genbank). N4Lid 10.1601/nm.8612

Genus *Micromonas*^{VP} Murdoch and Shah 2000. N4Lid DOI: 10.1601/nm.4210

Micromonas micros^{VP} (Prévot 1933) Murdoch and Shah 2000. <== *Peptostreptococcus micros* (basonym). Synonym links through N4Lid: 10.1601/ex.4184. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33270. High-quality 16S rRNA sequence S000432297 (RDP), AF542231 (Genbank). GOLD ID: Gi01730. GCAT ID: 000675_GCAT. Entrez genome id: 18169. Sequenced strain: ATCC 33270 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4211

† *Peptostreptococcus micros*^{AL} (Prévot 1933) Smith 1957. ==> *Micromonas micros* (new combination). Synonym links through N4Lid: 10.1601/ex.4184. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33270. High-quality 16S rRNA sequence S000432297 (RDP), AF542231 (Genbank). GOLD ID: Gi01730. GCAT ID: 000675_GCAT. Entrez genome id: 18169. Sequenced strain: ATCC 33270 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4184

† *Peptococcus glycinophilus*^{AL} (Cardon and Barker 1946) Douglas 1957. ≈ *Micromonas micros* (earlier heterotypic synonym), links through 10.1601/nm.4211. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 23195. N4Lid DOI: 10.1601/nm.4307

Genus *Peptoniphilus*^{VP} Ezaki et al. 2001. N4Lid DOI: 10.1601/nm.4212

Peptoniphilus asaccharolyticus^{VP} (Distaso 1912) Ezaki et al. 2001. <== *Peptococcus asaccharolyticus* (basonym). Synonym links through N4Lid: 10.1601/ex.4306. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 14963. High-quality 16S rRNA sequence S000413498 (RDP), D14138 (Genbank). N4Lid DOI: 10.1601/nm.4213

† *Peptococcus asaccharolyticus*^{AL} (Distaso 1912) Douglas 1957. ==> *Peptostreptococcus asaccharolyticus* (new combination). Synonym links through N4Lid: 10.1601/ex.4306. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 14963. High-quality 16S rRNA sequence S000413498 (RDP), D14138 (Genbank). N4Lid DOI: 10.1601/nm.4306

Peptostreptococcus asaccharolyticus^{VP} (Distaso 1912) Ezaki et al. 1983. <== *Peptococcus asaccharolyticus* (basonym). *Peptoniphilus asaccharolyticus* (new combination). Synonym links through N4Lid: 10.1601/ex.4306. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 14963. High-quality 16S rRNA sequence S000413498 (RDP), D14138 (Genbank). N4Lid DOI: 10.1601/nm.4174

Peptoniphilus harei^{VP} (Murdoch et al. 1997) Ezaki et al. 2001. <== *Peptostreptococcus harei* (basonym). Synonym links through N4Lid: 10.1601/ex.4176. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-601. High-quality 16S rRNA sequence S000003547 (RDP), Y07839 (Genbank). N4Lid DOI: 10.1601/nm.4214

† *Peptostreptococcus harei*^{VP} Murdoch et al. 1997. ==> *Peptoniphilus harei* (new combination). Synonym links through N4Lid: 10.1601/ex.4176. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-601. High-quality 16S rRNA sequence S000003547 (RDP), Y07839 (Genbank). N4Lid DOI: 10.1601/nm.4176

Peptoniphilus indolicus^{VP} (Christiansen 1934) Ezaki et al. 2001. <== *Peptococcus indolicus* (basonym). Synonym links through N4Lid: 10.1601/ex.4309. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29427. High-quality 16S rRNA sequence S000413507 (RDP), D14147 (Genbank). N4Lid DOI: 10.1601/nm.4215

† *Peptococcus indolicus*^{AL} (Christiansen 1934) Sorensen 1975. ==> *Peptostreptococcus indolicus* (new combination). Synonym links through N4Lid: 10.1601/ex.4309. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29427. High-quality 16S rRNA sequence S000413507 (RDP), D14147 (Genbank). N4Lid DOI: 10.1601/nm.4309

Peptostreptococcus indolicus^{VP} (Christiansen 1934) Ezaki et al. 1983. <== *Peptococcus indolicus* (basonym). *Peptoniphilus indolicus* (new combination). Synonym links through N4Lid: 10.1601/ex.4309. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29427. High-quality 16S rRNA sequence S000413507 (RDP), D14147 (Genbank). N4Lid DOI: 10.1601/nm.4179

Peptoniphilus ivorii^{VP} (Murdoch et al. 1997) Ezaki et al. 2001. <== *Peptostreptococcus ivorii* (basonym). Synonym links through N4Lid: 10.1601/ex.4180. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-602. High-quality 16S rRNA sequence S000001333 (RDP), Y07840 (Genbank). N4Lid DOI: 10.1601/nm.4216

† *Peptostreptococcus ivorii*^{VP} Murdoch et al. 1997. ==> *Peptoniphilus ivorii* (new combination). Synonym links through N4Lid: 10.1601/ex.4180. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-602. High-quality 16S rRNA sequence S000001333 (RDP), Y07840 (Genbank). N4Lid DOI: 10.1601/nm.4180

Peptoniphilus lacrimalis^{VP} (Li et al. 1992) Ezaki et al. 2001. <== *Peptostreptococcus lacrimalis* (basonym). Synonym links through N4Lid: 10.1601/ex.4181. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51171. High-quality 16S rRNA sequence S000413501 (RDP), D14141 (Genbank). N4Lid DOI: 10.1601/nm.4217

† *Peptostreptococcus lacrimalis*^{VP} Li et al. 1992. ==> *Peptoniphilus lacrimalis* (new combination). Synonym links through N4Lid: 10.1601/ex.4181. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51171. High-quality 16S rRNA sequence S000413501 (RDP), D14141 (Genbank). N4Lid DOI: 10.1601/nm.4181

Genus *Sedimentibacter*^{VP} Breitenstein et al. 2002. N4Lid DOI: 10.1601/nm.4218

Sedimentibacter hydroxybenzoicus^{VP} (Zhang et al. 1994) Breitenstein et al. 2002. <== *Clostridium hydroxybenzoicum* (basonym). Synonym links through N4Lid: 10.1601/ex.3951.

Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51151. High-quality 16S rRNA sequence S000001447 (RDP), L11305 (Genbank). N4Lid DOI: 10.1601/nm.4219

† *Clostridium hydroxybenzoicum*^{VP} Zhang et al. 1994. ==> *Sedimentibacter hydroxybenzoicus* (new combination). Synonym links through N4Lid: 10.1601/ex.3951. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51151. High-quality 16S rRNA sequence S000001447 (RDP), L11305 (Genbank). N4Lid DOI: 10.1601/nm.3951

Sedimentibacter saalensis^{VP} Breitenstein et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-283. High-quality 16S rRNA sequence S000277167 (RDP), AJ404680 (Genbank). N4Lid DOI: 10.1601/nm.4220

Genus *Sporanaerobacter*^{VP} Hernandez-Eugenio et al. 2002. N4Lid DOI: 10.1601/nm.4221

Sporanaerobacter acetigenes^{VP} Hernandez-Eugenio et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13106. High-quality 16S rRNA sequence S000392260 (RDP), AF358114 (Genbank). N4Lid DOI: 10.1601/nm.4222

Genus *Tissierella*^{VP} Collins and Shah 1986. N4Lid DOI: 10.1601/nm.4223

Tissierella praeacuta^{VP} (Tissier 1908) Collins and Shah 1986. <== *Bacteroides praeacutus* (basonym). Synonym links through N4Lid: 10.1601/ex.7978. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25539. High-quality 16S rRNA sequence S000260782 (RDP), X80833 (Genbank). N4Lid DOI: 10.1601/nm.4224

† *Clostridium hastiforme*^{AL} MacLennan 1939. ≈ *Tissierella praeacuta* (earlier heterotypic synonym), links through 10.1601/nm.4224. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33268. N4Lid DOI: 10.1601/nm.3943

† *Bacteroides praeacutus*^{AL} (Tissier 1908) Holdeman and Moore 1970. ==> *Tissierella praeacuta* (new combination). Synonym links through N4Lid: 10.1601/ex.7978. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25539. High-quality 16S rRNA sequence S000260782 (RDP), X80833 (Genbank). N4Lid DOI: 10.1601/nm.7978

Tissierella creatinini^{VP} Farrow et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9508. N4Lid DOI: 10.1601/nm.4225

Tissierella creatinophila^{VP} Harms et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 6911. N4Lid DOI: 10.1601/nm.4226

Family "*Eubacteriaceae*" N4Lid DOI: 10.1601/nm.4227

Genus *Eubacterium*^{AL} Prévot 1938. GOLD ID: Gi01726. GCAT ID: 000671_GCAT. Entrez genome id: 18207. Sequenced strain: L2-7 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4228

Eubacterium limosum^{AL} (Eggerth 1935) Prévot 1938. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 8486. High-quality 16S rRNA sequence S000436483 (RDP), M59120 (Genbank). N4Lid DOI: 10.1601/nm.4229

Eubacterium acidaminophilum^{VP} Zindel et al. 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49065. High-quality 16S rRNA sequence S000428418 (RDP), AF071416 (Genbank). N4Lid DOI: 10.1601/nm.4230

Eubacterium aggregans^{VP} Mechichi et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12183. High-quality 16S rRNA sequence S000022839 (RDP), AF073898 (Genbank). N4Lid DOI: 10.1601/nm.4232

Eubacterium angustum^{VP} Beuscher and Andreesen 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43737. High-quality 16S rRNA sequence S000414601 (RDP), L34612 (Genbank). N4Lid DOI: 10.1601/nm.4234

Eubacterium barkeri^{VP} (Stadtman et al. 1972) Collins et al. 1994. <== *Clostridium barkeri* (basonym). Synonym links through N4Lid: 10.1601/ex.3897. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25849. High-quality 16S rRNA sequence S000013687 (RDP), M23927 (Genbank). N4Lid DOI: 10.1601/nm.4235

† *Clostridium barkeri*^{AL} Stadtman et al. 1972. ==> *Eubacterium barkeri* (new combination). Synonym links through N4Lid: 10.1601/ex.3897. Source of type material recommended for DOE

sponsored genome sequencing by the JGI: ATCC 25849. High-quality 16S rRNA sequence S000013687 (RDP), M23927 (Genbank). N4Lid DOI: 10.1601/nm.3897

Eubacterium bifforme^{AL} (Eggerth 1935) Prévot 1938. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27806. High-quality 16S rRNA sequence S000021505 (RDP), M59230 (Genbank). N4Lid DOI: 10.1601/nm.4236

Eubacterium brachy^{VP} Holdeman et al. 1980. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33089. High-quality 16S rRNA sequence S000437153 (RDP), U13038 (Genbank). N4Lid DOI: 10.1601/nm.4237

Eubacterium budayi^{AL} (Le Blaye and Guggenheim 1914) Holdeman and Moore 1970. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25541. High-quality 16S rRNA sequence S000009130 (RDP), AB018183 (Genbank). N4Lid DOI: 10.1601/nm.4238

Eubacterium callanderi^{VP} Mountfort et al. 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49165. High-quality 16S rRNA sequence S000013427 (RDP), X96961 (Genbank). N4Lid DOI: 10.1601/nm.4239

Eubacterium cellulosolvans^{AL} (Bryant et al. 1958) Holdeman and Moore 1972. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43171. High-quality 16S rRNA sequence S000012715 (RDP), X71860 (Genbank). N4Lid DOI: 10.1601/nm.4240

Eubacterium combesii^{AL} (Prévot and Laplanche 1947) Holdeman and Moore 1970. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25545. High-quality 16S rRNA sequence S000414603 (RDP), L34614 (Genbank). N4Lid DOI: 10.1601/nm.4241

Eubacterium contortum^{AL} (Prévot 1947) Holdeman et al. 1971. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25540. High-quality 16S rRNA sequence S000414604 (RDP), L34615 (Genbank). N4Lid DOI: 10.1601/nm.4242

Eubacterium coprostanoligenes^{VP} Freier et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51222. N4Lid DOI: 10.1601/nm.4243

Eubacterium cylindroides^{AL} (Rocchi 1908) Holdeman and Moore 1970. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27803. High-quality 16S rRNA sequence S000414606 (RDP), L34617 (Genbank). N4Lid DOI: 10.1601/nm.4244

Eubacterium desmolans^{VP} Morris et al. 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43058. High-quality 16S rRNA sequence S000414607 (RDP), L34618 (Genbank). N4Lid DOI: 10.1601/nm.4245

Eubacterium dolichum^{AL} Moore et al. 1976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29143. High-quality 16S rRNA sequence S000414619 (RDP), L34682 (Genbank). N4Lid DOI: 10.1601/nm.4246

Eubacterium eligens^{AL} Holdeman and Moore 1974. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27750. High-quality 16S rRNA sequence S000414599 (RDP), L34420 (Genbank). GOLD ID: Gi00245. GCAT ID: 001051_GCAT. Entrez genome id: 13226. Sequenced strain: ATCC 27750 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4247

Eubacterium fissicatena^{AL} Taylor 1972. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33661. N4Lid DOI: 10.1601/nm.4249

Eubacterium hadrum^{AL} Moore et al. 1976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29173. N4Lid DOI: 10.1601/nm.4252

Eubacterium hallii^{AL} Holdeman and Moore 1974. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27751. High-quality 16S rRNA sequence S000414610 (RDP), L34621 (Genbank). GOLD ID: Gi01724. GCAT ID: 000669_GCAT. Entrez genome id: 18177. Sequenced strain: ATCC 27751 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4253

Eubacterium infirmum^{VP} Cheeseman et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700433. High-quality 16S rRNA sequence S000437154 (RDP), U13039 (Genbank). N4Lid DOI: 10.1601/nm.4254

Eubacterium minutum^{VP} Poco et al. 1996. ≈ *Eubacterium tardum* (later heterotypic synonym), links through 10.1601/nm.4256. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700079. High-quality 16S rRNA sequence S000437152 (RDP), U13037 (Genbank). N4Lid DOI: 10.1601/nm.4256

† *Eubacterium tardum*^{VP} Cheeseman et al. 1996. ≈ *Eubacterium minutum* (earlier heterotypic synonym), links through 10.1601/nm.4256. Source of type material recommended for DOE sponsored genome sequencing by the JGI: NCTC 12941. N4Lid DOI: 10.1601/nm.4274

Eubacterium moniliforme^{AL} (Repaci 1910) Holdeman and Moore 1970. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25546. High-quality 16S rRNA sequence S000414611 (RDP), L34622 (Genbank). N4Lid DOI: 10.1601/nm.4257

Eubacterium multiforme^{AL} (Distaso 1911) Holdeman and Moore 1970. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25552. High-quality 16S rRNA sequence S000001853 (RDP), AB018184 (Genbank). N4Lid DOI: 10.1601/nm.4258

Eubacterium nitritogenes^{AL} Prévot 1940. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25547. High-quality 16S rRNA sequence S000005758 (RDP), AB018185 (Genbank). N4Lid DOI: 10.1601/nm.4259

Eubacterium nodatum^{VP} Holdeman et al. 1980. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33099. High-quality 16S rRNA sequence S000437156 (RDP), U13041 (Genbank). N4Lid DOI: 10.1601/nm.4260

Eubacterium oxidoreducens^{VP} corrig. Krumholz and Bryant 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43585. N4Lid DOI: 10.1601/nm.4261

Eubacterium plautii^{VP} (Séguin 1928) Hofstad and Aasjord 1982. <== *Fusobacterium plautii* (basonym). Synonym links through N4Lid: 10.1601/ex.8363. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29863. GOLD ID: Gi01725. GCAT ID: 000670_GCAT. Entrez genome id: 18189. Sequenced strain: ATCC 29863 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4262

† *Fusobacterium plautii*^{AL} corrig. Séguin 1928. ==> *Eubacterium plautii* (new combination). Synonym links through N4Lid: 10.1601/ex.8363. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29863. GOLD ID: Gi01725. GCAT ID: 000670_GCAT. Entrez genome id: 18189. Sequenced strain: ATCC 29863 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.8363

Eubacterium plexicaudatum^{AL} Wilkins et al. 1974. Source of type material recommended for DOE sponsored genome sequencing by the JGI: VPI 7582. N4Lid DOI: 10.1601/nm.4263

Eubacterium pyruvativorans^{VP} Wallace et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-574. High-quality 16S rRNA sequence S000137585 (RDP), AJ310135 (Genbank). N4Lid DOI: 10.1601/nm.4264

Eubacterium ramulus^{AL} Moore et al. 1976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29099. High-quality 16S rRNA sequence S000414612 (RDP), L34623 (Genbank). N4Lid DOI: 10.1601/nm.4265

Eubacterium rectale^{AL} (Hauduroy et al. 1937) Prévot 1938. Source of type material recommended for DOE sponsored genome sequencing by the JGI: VPI 0989. High-quality 16S rRNA sequence S000414616 (RDP), L34627 (Genbank). GOLD ID: Gi01743. GCAT ID: 001052_GCAT. Sequenced strain: ATCC 33656 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.4266

Eubacterium ruminantium^{AL} Bryant 1959. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17233. High-quality 16S rRNA sequence S000381879 (RDP), AB008552 (Genbank). N4Lid DOI: 10.1601/nm.4267

Eubacterium saburreum^{AL} (Prévot 1966) Holdeman and Moore 1970. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33271. N4Lid DOI: 10.1601/nm.4268

Eubacterium saphenum^{VP} corrig. Uematsu et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49989. High-quality 16S rRNA sequence S000438214 (RDP), U65987 (Genbank). N4Lid DOI: 10.1601/nm.4269

Eubacterium siraeum^{AL} Moore et al. 1976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29066. High-quality 16S rRNA sequence S000414614 (RDP), L34625 (Genbank). N4Lid DOI: 10.1601/nm.4270

Eubacterium sulci^{VP} (Cato et al. 1985) Jalava and Eerola 1999. <== *Fusobacterium sulci* (basonym). Synonym links through N4Lid: 10.1601/ex.8369. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35585. High-quality 16S rRNA sequence S000128264 (RDP), AJ006963 (Genbank). N4Lid DOI: 10.1601/nm.4272

† *Fusobacterium sulci*^{VP} Cato et al. 1985. ==> *Eubacterium sulci* (new combination). Synonym links through N4Lid: 10.1601/ex.8369. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35585. High-quality 16S rRNA sequence S000128264 (RDP), AJ006963 (Genbank). N4Lid DOI: 10.1601/nm.8369

Eubacterium tarantellae^{AL} corrig. Udey et al. 1977. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29255. High-quality 16S rRNA sequence S000414613 (RDP), L34624 (Genbank). N4Lid DOI: 10.1601/nm.4273

Eubacterium tenue^{AL} (Bergey et al. 1923) Holdeman and Moore 1970. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25553. High-quality 16S rRNA sequence S000436481 (RDP), M59118 (Genbank). N4Lid DOI: 10.1601/nm.4275

Eubacterium tortuosum^{AL} (Debono 1912) Prévot 1938. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25548. High-quality 16S rRNA sequence S000414620 (RDP), L34683 (Genbank). N4Lid DOI: 10.1601/nm.4277

Eubacterium uniforme^{VP} van Gylswyk and van der Toorn 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35992. High-quality 16S rRNA sequence S000414615 (RDP), L34626 (Genbank). N4Lid DOI: 10.1601/nm.4278

Eubacterium ventriosum^{AL} (Tissier 1908) Prévot 1938. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27560. High-quality 16S rRNA sequence S000414600 (RDP), L34421 (Genbank). GOLD ID: Gi01727. GCAT ID: 000672_GCAT. Entrez genome id: 18159. Sequenced strain: ATCC 27560 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4279

Eubacterium xylanophilum^{VP} van Gylswyk and van der Toorn 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35991. High-quality 16S rRNA sequence S000414617 (RDP), L34628 (Genbank). N4Lid DOI: 10.1601/nm.4280

Eubacterium yurii subsp. yurii^{VP} Margaret and Krywolap 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43714. N4Lid DOI: 10.1601/nm.4281

Eubacterium yurii subsp. margaretae^{VP} Margaret and Krywolap 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43715. N4Lid DOI: 10.1601/nm.4282

Eubacterium yurii subsp. schtitka^{VP} Margaret and Krywolap 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43716. N4Lid DOI: 10.1601/nm.4283

Genus *Acetobacterium*^{AL} Balch et al. 1977. N4Lid DOI: 10.1601/nm.4284

Acetobacterium woodii^{AL} Balch et al. 1977. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29683. High-quality 16S rRNA sequence S000001549 (RDP), X96954 (Genbank). N4Lid DOI: 10.1601/nm.4285

Acetobacterium bakii^{VP} Kotsyurbenko et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51794. High-quality 16S rRNA sequence S000007646 (RDP), X96960 (Genbank). N4Lid DOI: 10.1601/nm.4286

Acetobacterium carbinolicum^{VP} Eichler and Schink 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2925. High-quality 16S rRNA sequence S000003382 (RDP), X96956 (Genbank). N4Lid DOI: 10.1601/nm.4287

Acetobacterium fimetarium^{VP} Kotsyurbenko et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51795. High-quality 16S rRNA sequence S000014924 (RDP), X96959 (Genbank). N4Lid DOI: 10.1601/nm.4288

Acetobacterium malicum^{VP} Tanaka and Pfennig 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51201. High-quality 16S rRNA sequence S000011134 (RDP), X96957 (Genbank). N4Lid DOI: 10.1601/nm.4289

Acetobacterium paludosum^{VP} Kotsyurbenko et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51793. High-quality 16S rRNA sequence S000003862 (RDP), X96958 (Genbank). N4Lid DOI: 10.1601/nm.4290

Acetobacterium tundrae^{VP} Simankova et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-996. High-quality 16S rRNA sequence S000019176 (RDP), AJ297449 (Genbank). N4Lid DOI: 10.1601/nm.4291

Acetobacterium wieringae^{VP} Braun and Gottschalk 1983. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43740. High-quality 16S rRNA sequence S000009988 (RDP), X96955 (Genbank). N4Lid DOI: 10.1601/nm.4292

Genus *Alkalibacter*^{VP} Garnova et al. 2005. N4Lid 10.1601/nm.9389

Alkalibacter saccharofermentans^{VP} Garnova et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14828. High-quality 16S rRNA sequence S000500949 (RDP), AY312403 (Genbank). N4Lid 10.1601/nm.9388

Genus *Anaerofustis*^{VP} Finegold et al. 2004. N4Lid DOI: 10.1601/nm.8462

Anaerofustis stercorihominis^{VP} Finegold et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-858. High-quality 16S rRNA sequence S000351779 (RDP), AJ518871 (Genbank). N4Lid DOI: 10.1601/nm.8463

Genus *Anaerovorax*^{VP} Matthies et al. 2000. N4Lid DOI: 10.1601/nm.4293

Anaerovorax odorimutans^{VP} Matthies et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-160. High-quality 16S rRNA sequence S000018485 (RDP), AJ251215 (Genbank). N4Lid DOI: 10.1601/nm.4294

Genus *Mogibacterium*^{VP} Nakazawa et al. 2000. N4Lid DOI: 10.1601/nm.4295

Mogibacterium pumilum^{VP} Nakazawa et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700696. High-quality 16S rRNA sequence S000014865 (RDP), AB021701 (Genbank). N4Lid DOI: 10.1601/nm.4296

Mogibacterium diversum^{VP} Nakazawa et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700923. High-quality 16S rRNA sequence S000383168 (RDP), AB037874 (Genbank). N4Lid DOI: 10.1601/nm.4297

Mogibacterium neglectum^{VP} Nakazawa et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700924. High-quality 16S rRNA sequence S000383169 (RDP), AB037875 (Genbank). N4Lid DOI: 10.1601/nm.4298

Mogibacterium timidum^{VP} (Holdeman et al. 1980) Nakazawa et al. 2000. <== *Eubacterium timidum* (basonym). Synonym links through N4Lid: 10.1601/ex.4276. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33093. High-quality 16S rRNA sequence S000437157 (RDP), U13042 (Genbank). N4Lid DOI: 10.1601/nm.4299

† *Eubacterium timidum*^{VP} Holdeman et al. 1980. ==> *Mogibacterium timidum* (new combination). Synonym links through N4Lid: 10.1601/ex.4276. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33093. High-quality 16S rRNA sequence S000437157 (RDP), U13042 (Genbank). N4Lid DOI: 10.1601/nm.4276

Mogibacterium vescum^{VP} Nakazawa et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700697. High-quality 16S rRNA sequence S000021364 (RDP), AB021702 (Genbank). N4Lid DOI: 10.1601/nm.4300

Genus *Pseudoramibacter*^{VP} Willems and Collins 1996. N4Lid DOI: 10.1601/nm.4301

Pseudoramibacter alactolyticus^{VP} (Prévot and Taffanel 1942) Willems and Collins 1996. <== *Eubacterium alactolyticum* (basonym). Synonym links through N4Lid: 10.1601/ex.4233. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 23263. High-quality 16S rRNA sequence S000064824 (RDP), AB036759 (Genbank). N4Lid DOI: 10.1601/nm.4302

† *Eubacterium alactolyticum*^{AL} (Prévot and Taffanel 1942) Holdeman and Moore 1970. ==> *Pseudoramibacter alactolyticus* (new combination). Synonym links through N4Lid: 10.1601/ex.4233. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 23263. High-quality 16S rRNA sequence S000064824 (RDP), AB036759 (Genbank). N4Lid DOI: 10.1601/nm.4233

Family Peptococcaceae^{AL} Rogosa 1971. N4Lid DOI: 10.1601/nm.4303

Genus Peptococcus^{AL} Kluver and van Niel 1936. N4Lid DOI: 10.1601/nm.4304

Peptococcus niger^{AL} (Hall 1930) Kluver and van Niel 1936. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27731. High-quality 16S rRNA sequence S000022285 (RDP), X55797 (Genbank). N4Lid DOI: 10.1601/nm.4305

Genus Carboxydotherrmus^{VP} Svetlichny et al. 1991. N4Lid DOI: 10.1601/nm.4313

Carboxydotherrmus hydrogenoformans^{VP} Svetlichny et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-161. GOLD ID: Gc00307. GCAT ID: 000303_GCAT. Entrez genome id: 253. Sequenced strain: DSM 6008 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4314

Pelotomaculum isophthalicum^{VP} corrig. Qiu et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1053. High-quality 16S rRNA sequence S000569921 (RDP), AB232785 (Genbank). N4Lid DOI: 10.1601/nm.10324

Pelotomaculum terephthalicum^{VP} corrig. Qiu et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16121. High-quality 16S rRNA sequence S000375954 (RDP), AB091323 (Genbank). N4Lid DOI: 10.1601/nm.10325

Genus Dehalobacter^{VP} Holliger et al. 1998. N4Lid DOI: 10.1601/nm.4315

Dehalobacter restrictus^{VP} Holliger et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9455. High-quality 16S rRNA sequence S000364106 (RDP), U84497 (Genbank). N4Lid DOI: 10.1601/nm.4316

Genus Desulfotobacterium^{VP} Utkin et al. 1994. N4Lid DOI: 10.1601/nm.4317

Desulfotobacterium dehalogenans^{VP} Utkin et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51507. High-quality 16S rRNA sequence S000414558 (RDP), L28946 (Genbank). N4Lid DOI: 10.1601/nm.4318

Desulfotobacterium chlororespirans^{VP} Sanford et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700175. High-quality 16S rRNA sequence S000438348 (RDP), U68528 (Genbank). N4Lid DOI: 10.1601/nm.4319

† *Desulfotobacterium frappieri*^{VP} Bouchard et al. 1996. ≈ *Desulfotobacterium hafniense* (earlier heterotypic synonym), links through 10.1601/nm.4321. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700357. High-quality 16S rRNA sequence S000437565 (RDP), U40078 (Genbank). N4Lid DOI: 10.1601/nm.4320

Desulfotobacterium hafniense^{VP} Christiansen and Ahring 1996. ≈ *Desulfotobacterium frappieri* (later heterotypic synonym), links through 10.1601/nm.4321. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10664. High-quality 16S rRNA sequence S000001583 (RDP), X94975 (Genbank). GOLD ID: Gc00358. GCAT ID: 000252_GCAT. Entrez genome id: 16639. Sequenced strain: DCB-2 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 2 (GOLD) 2 (NCBI). N4Lid DOI: 10.1601/nm.4321

Desulfotobacterium metallireducens^{VP} Finneran et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-636. High-quality 16S rRNA sequence S000499004 (RDP), AF297871 (Genbank). N4Lid DOI: 10.1601/nm.4322

Genus Desulfonispota^{VP} Denger et al. 1999. N4Lid DOI: 10.1601/nm.4323

Desulfonispota thiosulfatigenes^{VP} Denger et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700533. High-quality 16S rRNA sequence S000020732 (RDP), Y18214 (Genbank). N4Lid DOI: 10.1601/nm.4324

Genus Desulfosporosinus^{VP} Stackebrandt et al. 1997. N4Lid DOI: 10.1601/nm.4325

Desulfosporosinus orientis^{VP} (Campbell and Postgate 1965) Stackebrandt et al. 1997. <== *Desulfotomaculum orientis* (basonym). Synonym links through N4Lid: 10.1601/ex.4343. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19365.

High-quality 16S rRNA sequence S000020727 (RDP), Y11570 (Genbank). N4Lid DOI: 10.1601/nm.4326

Desulfosporosinus auripigmenti^{VP} corrig. (Newman et al. 2000) Stackebrandt et al. 2003. <== *Desulfotomaculum auripigmentum* (basonym). Synonym links through N4Lid: 10.1601/ex.4335. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700205. High-quality 16S rRNA sequence S000145523 (RDP), AJ493051 (Genbank). N4Lid DOI: 10.1601/nm.4327

Desulfosporosinus meridiei^{VP} Robertson et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-275. High-quality 16S rRNA sequence S000428485 (RDP), AF076527 (Genbank). N4Lid DOI: 10.1601/nm.4328

Genus *Desulfotomaculum*^{AL} Campbell and Postgate 1965. N4Lid DOI: 10.1601/nm.4329

Desulfotomaculum nigrificans^{AL} (Werkman and Weaver 1927) Campbell and Postgate 1965. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19998. High-quality 16S rRNA sequence S000130072 (RDP), X62176 (Genbank). N4Lid DOI: 10.1601/nm.4330

Desulfotomaculum acetoxidans^{AL} Widdel and Pfennig 1977. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49208. High-quality 16S rRNA sequence S000004306 (RDP), Y11566 (Genbank). N4Lid DOI: 10.1601/nm.4331

Desulfotomaculum aeronauticum^{VP} Hagenauer et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10349. High-quality 16S rRNA sequence S000001971 (RDP), X98407 (Genbank). N4Lid DOI: 10.1601/nm.4332

Desulfotomaculum alkaliphilum^{VP} Pikuta et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700784. High-quality 16S rRNA sequence S000428823 (RDP), AF097024 (Genbank). N4Lid DOI: 10.1601/nm.4333

"*Desulfotomaculum antarctica*" Source of type material recommended for DOE sponsored genome sequencing by the JGI: IAM 64. N4Lid DOI: 10.1601/nm.4334

† *Desulfotomaculum auripigmentum*^{VP} Newman et al. 2000. ==> *Desulfosporosinus auripigmenti* (new combination). Synonym links through N4Lid: 10.1601/ex.4335. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700205. High-quality 16S rRNA sequence S000145523 (RDP), AJ493051 (Genbank). N4Lid DOI: 10.1601/nm.4335

Desulfotomaculum australicum^{VP} Love et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ACM 3917. High-quality 16S rRNA sequence S000436945 (RDP), M96665 (Genbank). N4Lid DOI: 10.1601/nm.4336

Desulfotomaculum geothermicum^{VP} Daumas et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49053. High-quality 16S rRNA sequence S000366775 (RDP), AJ621886 (Genbank). N4Lid DOI: 10.1601/nm.4337

Desulfotomaculum gibsoniae^{VP} Kuever et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 7213. N4Lid DOI: 10.1601/nm.4338

Desulfotomaculum guttoideum^{VP} Gogotova and Vainstein 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4024. High-quality 16S rRNA sequence S000001973 (RDP), Y11568 (Genbank). N4Lid DOI: 10.1601/nm.4339

Desulfotomaculum halophilum^{VP} Tardy-Jacquenod et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700650. High-quality 16S rRNA sequence S000438735 (RDP), U88891 (Genbank). N4Lid DOI: 10.1601/nm.4340

Desulfotomaculum kuznetsovii^{VP} Nazina et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 6115. High-quality 16S rRNA sequence S000013877 (RDP), Y11569 (Genbank). N4Lid DOI: 10.1601/nm.4341

Desulfotomaculum luciae^{VP} Liu et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700428. High-quality 16S rRNA sequence S000428385 (RDP), AF069293 (Genbank). N4Lid DOI: 10.1601/nm.4342

† *Desulfotomaculum orientis*^{AL} Campbell and Postgate 1965. ==> *Desulfosporosinus orientis* (new combination). Synonym links through N4Lid: 10.1601/ex.4343. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19365. High-quality 16S rRNA sequence S000020727 (RDP), Y11570 (Genbank). N4Lid DOI: 10.1601/nm.4343

Desulfotomaculum putei^{VP} Liu et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700427. High-quality 16S rRNA sequence S000428122 (RDP), AF053929 (Genbank). N4Lid DOI: 10.1601/nm.4344

Desulfotomaculum ruminis^{AL} Campbell and Postgate 1965. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 23193. High-quality 16S rRNA sequence S000436248 (RDP), M34418 (Genbank). N4Lid DOI: 10.1601/nm.4345

Desulfotomaculum sapomandens^{VP} Cord-Ruwisch and Garcia 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 3223. High-quality 16S rRNA sequence S000002651 (RDP), AF168365 (Genbank). N4Lid DOI: 10.1601/nm.4346

Desulfotomaculum thermoacetoxidans^{VP} Min and Zinder 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 5813. High-quality 16S rRNA sequence S000021518 (RDP), Y11573 (Genbank). N4Lid DOI: 10.1601/nm.4347

Desulfotomaculum thermobenzoicum subsp. thermobenzoicum^{VP} Tasaki et al. 1991. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49756. High-quality 16S rRNA sequence S000003904 (RDP), Y11574 (Genbank). N4Lid DOI: 10.1601/nm.4348

Desulfotomaculum thermobenzoicum subsp. thermosyntrophicum^{VP} Plugge et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-281. High-quality 16S rRNA sequence S000434346 (RDP), AY007190 (Genbank). N4Lid DOI: 10.1601/nm.4349

Desulfotomaculum thermocisternum^{VP} Nilsen et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10259. High-quality 16S rRNA sequence S000437489 (RDP), U33455 (Genbank). N4Lid DOI: 10.1601/nm.4350

Desulfotomaculum thermosapovorans^{VP} Fardeau et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 6562. High-quality 16S rRNA sequence S000007760 (RDP), Y11575 (Genbank). N4Lid DOI: 10.1601/nm.4351

Genus *Pelotomaculum*^{VP} Imachi et al. 2002. N4Lid DOI: 10.1601/nm.4352

Pelotomaculum thermopropionicum^{VP} Imachi et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13744. High-quality 16S rRNA sequence S000383099 (RDP), AB035723 (Genbank). N4Lid DOI: 10.1601/nm.4353

Genus *Syntrophobotulus*^{VP} Friedrich et al. 1996. N4Lid DOI: 10.1601/nm.4354

Syntrophobotulus glycolicus^{VP} Friedrich et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 8271. N4Lid DOI: 10.1601/nm.4355

Genus *Thermoterrabacterium*^{VP} Slobodkin et al. 1997. N4Lid DOI: 10.1601/nm.4356

Thermoterrabacterium ferrireducens^{VP} Slobodkin et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11255. High-quality 16S rRNA sequence S000438436 (RDP), U76363 (Genbank). N4Lid DOI: 10.1601/nm.4357

Family "*Heliobacteriaceae*" N4Lid DOI: 10.1601/nm.4358

Genus *Heliobacterium*^{VP} Gest and Favinger 1985. N4Lid DOI: 10.1601/nm.4359

Genus *Cryptanaerobacter*^{VP} Juteau et al. 2005. N4Lid DOI: 10.1601/nm.8555

Cryptanaerobacter phenolicus^{VP} Juteau et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-820. High-quality 16S rRNA sequence S000473617 (RDP), AY327251 (Genbank). N4Lid DOI: 10.1601/nm.8556

Desulfotomaculum solfataricum^{VP} Goorissen et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-573. High-quality 16S rRNA sequence S000435157 (RDP), AY084078 (Genbank). N4Lid 10.1601/nm.8934

Desulfotomaculum antarcticum^{VP} (ex Iizuka et al. 1969) Campbell and Singleton 1988. Source of type material recommended for DOE sponsored genome sequencing by the JGI: IAM 64. N4Lid 10.1601/nm.9147

Pelotomaculum schinkii^{VP} de Bok et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-615. High-quality 16S rRNA sequence S000588794 (RDP), X91169 (Genbank). GOLD ID: Gi01748. GCAT ID: 001596_GCAT. Sequenced strain: HH is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid 10.1601/nm.9509

Thermincola carboxydiphila^{VP} Sokolova et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17129. High-quality 16S rRNA sequence S000504524 (RDP), AY603000 (Genbank). N4Lid 10.1601/nm.9592

Genus *Thermincola*^{VP} Sokolova et al. 2005. N4Lid 10.1601/nm.9593

Desulfotomaculum carboxydivorans^{VP} Parshina et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14880. High-quality 16S rRNA sequence S000597559 (RDP), AY961415 (Genbank). N4Lid 10.1601/nm.9604

Desulfotomaculum arcticum^{VP} Vandieken et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17038. High-quality 16S rRNA sequence S000588195 (RDP), DQ148942 (Genbank). N4Lid 10.1601/nm.9961

Heliobacterium chlorum^{VP} Gest and Favinger 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35205. High-quality 16S rRNA sequence S000436035 (RDP), M11212 (Genbank). N4Lid DOI: 10.1601/nm.4360

Heliobacterium gestii^{VP} Ormerod et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43375. High-quality 16S rRNA sequence S000010667 (RDP), L36198 (Genbank). N4Lid DOI: 10.1601/nm.4361

Heliobacterium modesticaldum^{VP} Kimble et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51547. High-quality 16S rRNA sequence S000437162 (RDP), U14559 (Genbank). GOLD ID: Gi00725. GCAT ID: 001138_GCAT. Entrez genome id: 13427. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4362

Heliobacterium sulfidophilum^{VP} Bryantseva et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: UNIQEM 113. High-quality 16S rRNA sequence S000390059 (RDP), AF249678 (Genbank). N4Lid DOI: 10.1601/nm.4363

Heliobacterium undosum^{VP} Bryantseva et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13378. High-quality 16S rRNA sequence S000390060 (RDP), AF249679 (Genbank). N4Lid DOI: 10.1601/nm.4364

Genus *Heliobacillus*^{VP} Beer-Romero and Gest 1998. N4Lid DOI: 10.1601/nm.4365

Heliobacillus mobilis^{VP} Beer-Romero and Gest 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43427. GOLD ID: Gi00296. GCAT ID: 001137_GCAT. Entrez genome id: 13236. Genome sequence is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4366

Genus *Heliophilum*^{VP} Ormerod et al. 1996. N4Lid DOI: 10.1601/nm.4367

Heliophilum fasciatum^{VP} Ormerod et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51790. High-quality 16S rRNA sequence S000414661 (RDP), L36197 (Genbank). N4Lid DOI: 10.1601/nm.4368

Genus *Heliorestis*^{VP} Bryantseva et al. 2000. N4Lid DOI: 10.1601/nm.4369

Heliorestis daurensis^{VP} Bryantseva et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700798. High-quality 16S rRNA sequence S000428533 (RDP), AF079102 (Genbank). N4Lid DOI: 10.1601/nm.4370

Heliorestis baculata^{VP} Bryantseva et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13446. High-quality 16S rRNA sequence S000390061 (RDP), AF249680 (Genbank). N4Lid DOI: 10.1601/nm.4371

Family "*Acidaminococcaceae*" N4Lid DOI: 10.1601/nm.4372

Genus *Acidaminococcus*^{AL} Rogosa 1969. N4Lid DOI: 10.1601/nm.4373

Acidaminococcus fermentans^{AL} Rogosa 1969. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25085. High-quality 16S rRNA sequence S000128873 (RDP), X65935 (Genbank). N4Lid DOI: 10.1601/nm.4374

Genus *Acetonema*^{VP} Kane and Breznak 1992. N4Lid DOI: 10.1601/nm.4375

Acetonema longum^{VP} Kane and Breznak 1992. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51454. High-quality 16S rRNA sequence S000436586 (RDP), M61919 (Genbank). N4Lid DOI: 10.1601/nm.4376

Genus *Allisonella*^{VP} Garner et al. 2003. N4Lid DOI: 10.1601/nm.4377

Allisonella histaminiformans^{VP} Garner et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-610. High-quality 16S rRNA sequence S000432772 (RDP), AF548373 (Genbank). N4Lid DOI: 10.1601/nm.4378

Genus *Anaeroarcus*^{VP} Strömpl et al. 1999. N4Lid DOI: 10.1601/nm.4379

Anaeroarcus burkinensis^{VP} corrig. (Ouattara et al. 1992) Strömpl et al. 1999. <== *Anaerovibrio burkinabensis* (basonym). Synonym links through N4Lid: 10.1601/ex.4389. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51455. High-quality 16S rRNA sequence S000112934 (RDP), AJ010961 (Genbank). N4Lid DOI: 10.1601/nm.4380

† *Anaerovibrio burkinabensis*^{VP} Ouattara et al. 1992. ==> *Anaeroarcus burkinensis* (new combination). Synonym links through N4Lid: 10.1601/ex.4389. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51455. High-quality 16S rRNA sequence S000112934 (RDP), AJ010961 (Genbank). N4Lid DOI: 10.1601/nm.4389

Genus *Anaeroglobus*^{VP} Carlier et al. 2002. N4Lid DOI: 10.1601/nm.4381

Anaeroglobus geminatus^{VP} Carlier et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 44773. High-quality 16S rRNA sequence S000391947 (RDP), AF338413 (Genbank). N4Lid DOI: 10.1601/nm.4382

Genus *Anaeromusa*^{VP} Baena et al. 1999. N4Lid DOI: 10.1601/nm.4383

Anaeromusa acidaminophila^{VP} Baena et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43704. High-quality 16S rRNA sequence S000428417 (RDP), AF071415 (Genbank). N4Lid DOI: 10.1601/nm.4384

Genus *Anaerosinus*^{VP} Strömpl et al. 1999. N4Lid DOI: 10.1601/nm.4385

Anaerosinus glycerini^{VP} (Schauder and Schink 1996) Strömpl et al. 1999. <== *Anaerovibrio glycerini* (basonym). Synonym links through N4Lid: 10.1601/ex.4390. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51177. High-quality 16S rRNA sequence S000112717 (RDP), AJ010960 (Genbank). N4Lid DOI: 10.1601/nm.4386

† *Anaerovibrio glycerini*^{VP} Schauder and Schink 1996. ==> *Anaerosinus glycerini* (new combination). Synonym links through N4Lid: 10.1601/ex.4390. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51177. High-quality 16S rRNA sequence S000112717 (RDP), AJ010960 (Genbank). N4Lid DOI: 10.1601/nm.4390

Genus *Anaerovibrio*^{AL} Hungate 1966. N4Lid DOI: 10.1601/nm.4387

Anaerovibrio lipolyticus^{AL} corrig. Hungate 1966. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33276. High-quality 16S rRNA sequence S000112583 (RDP), AJ010959 (Genbank). N4Lid DOI: 10.1601/nm.4388

Genus *Centipeda*^{VP} Lai et al. 1983. N4Lid DOI: 10.1601/nm.4391

Centipeda periodontii^{VP} Lai et al. 1983. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35019. High-quality 16S rRNA sequence S000112584 (RDP), AJ010963 (Genbank). N4Lid DOI: 10.1601/nm.4392

Genus *Dendrosporobacter*^{VP} Strömpl et al. 2000. N4Lid DOI: 10.1601/nm.4393

Dendrosporobacter quercicolus^{VP} (Stankewich et al. 1971) Strömpl et al. 2000. <== *Clostridium quercicolum* (basonym). Synonym links through N4Lid: 10.1601/ex.4005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25974. High-quality 16S rRNA sequence S000436474 (RDP), M59110 (Genbank). N4Lid DOI: 10.1601/nm.4394

† *Clostridium quercicolum*^{AL} Stankewich et al. 1971. ==> *Dendrosporobacter quercicolus* (new combination). Synonym links through N4Lid: 10.1601/ex.4005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25974. High-quality 16S rRNA sequence S000436474 (RDP), M59110 (Genbank). N4Lid DOI: 10.1601/nm.4005

Genus *Dialister*^{VP} (ex Bergey et al. 1923) Moore and Moore 1994. N4Lid DOI: 10.1601/nm.4395

Dialister pneumosintes^{VP} (Olitsky and Gates 1921) Moore and Moore 1994. <== *Bacteroides pneumosintes* (basonym). Synonym links through N4Lid: 10.1601/ex.7976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33048. High-quality 16S rRNA sequence S000011947 (RDP), X82500 (Genbank). N4Lid DOI: 10.1601/nm.4396

† *Bacteroides pneumosintes*^{AL} (Olitsky and Gates 1921) Holdeman and Moore 1970. ==> *Dialister pneumosintes* (new combination). Synonym links through N4Lid: 10.1601/ex.7976. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33048. High-quality 16S rRNA sequence S000011947 (RDP), X82500 (Genbank). N4Lid DOI: 10.1601/nm.7976

Dialister micraerophilus^{VP} Jumas-Bilak et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 48837. High-quality 16S rRNA sequence S000446390 (RDP), AF473837 (Genbank). N4Lid 10.1601/nm.9707

Dialister propionicifaciens^{VP} Jumas-Bilak et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 108582. High-quality 16S rRNA sequence S000478276 (RDP), AY850119 (Genbank). N4Lid 10.1601/nm.9708

Dialister invisus^{VP} Downes et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15470. High-quality 16S rRNA sequence S000398983 (RDP), AY162469 (Genbank). N4Lid DOI: 10.1601/nm.4397

Genus *Megasphaera*^{AL} Rogosa 1971. N4Lid DOI: 10.1601/nm.4398

Megasphaera elsdenii^{AL} (Gutierrez et al. 1959) Rogosa 1971. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 25940. High-quality 16S rRNA sequence S000438884 (RDP), U95027 (Genbank). N4Lid DOI: 10.1601/nm.4399

Megasphaera cerevisiae^{VP} Engelmann and Weiss 1986. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43254. N4Lid DOI: 10.1601/nm.4400

Megasphaera paucivorans^{VP} Juvonen and Suihko 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16981. High-quality 16S rRNA sequence S000614759 (RDP), DQ223730 (Genbank). N4Lid 10.1601/nm.9963

Megasphaera sueciensis^{VP} Juvonen and Suihko 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17042. High-quality 16S rRNA sequence S000614758 (RDP), DQ223729 (Genbank). N4Lid 10.1601/nm.9964

Megasphaera micronuciformis^{VP} Marchandin et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 45952. High-quality 16S rRNA sequence S000395077 (RDP), AF473834 (Genbank). N4Lid DOI: 10.1601/nm.4401

Genus *Mitsuokella*^{VP} Shah and Collins 1983. N4Lid DOI: 10.1601/nm.4402

Mitsuokella multacida^{VP} corrig. (Mitsuoka et al. 1974) Shah and Collins 1983. <== *Bacteroides multiacidus* (basonym). Synonym links through N4Lid: 10.1601/ex.7967. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27723. High-quality 16S rRNA sequence S000010043 (RDP), X81878 (Genbank). N4Lid DOI: 10.1601/nm.4403

† *Bacteroides multiacidus*^{AL} Mitsuoka et al. 1974. ==> *Mitsuokella multacida* (new combination). Synonym links through N4Lid: 10.1601/ex.7967. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 27723. High-quality 16S rRNA sequence S000010043 (RDP), X81878 (Genbank). N4Lid DOI: 10.1601/nm.7967

Mitsuokella jalaludinii^{VP} Lan et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-307. High-quality 16S rRNA sequence S000429465 (RDP), AF479674 (Genbank). N4Lid DOI: 10.1601/nm.4405

Genus *Papillibacter*^{VP} Defnoun et al. 2000. N4Lid DOI: 10.1601/nm.4406

Papillibacter cinnamivorans^{VP} Defnoun et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700879. High-quality 16S rRNA sequence S000388430 (RDP), AF167711 (Genbank). N4Lid DOI: 10.1601/nm.4407

Genus *Pectinatus*^{AL} Lee et al. 1978. N4Lid DOI: 10.1601/nm.4408

Pectinatus cerevisiiphilus^{AL} Lee et al. 1978. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 29359. High-quality 16S rRNA sequence S000392554 (RDP), AF373026 (Genbank). N4Lid DOI: 10.1601/nm.4409

Pectinatus frisingensis^{VP} Schleifer et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33332. High-quality 16S rRNA sequence S000392555 (RDP), AF373027 (Genbank). N4Lid DOI: 10.1601/nm.4410

Pectinatus haikarae^{VP} Juvonen and Suihko 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16980. High-quality 16S rRNA sequence S000614760 (RDP), DQ223731 (Genbank). N4Lid 10.1601/nm.9965

- Pectinatus portalensis*^{VP} Gonzalez et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: LMG 22865. High-quality 16S rRNA sequence S000274852 (RDP), AY428574 (Genbank). N4Lid 10.1601/nm.9295
- Genus *Phascolarctobacterium***^{VP} Del Dot et al. 1994. N4Lid DOI: 10.1601/nm.4411
- Phascolarctobacterium faecium*^{VP} Del Dot et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14760. High-quality 16S rRNA sequence S000013701 (RDP), X72865 (Genbank). N4Lid DOI: 10.1601/nm.4412
- Genus *Propionispira***^{VP} Schink et al. 1983. N4Lid DOI: 10.1601/nm.4413
- Propionispira arboris*^{VP} Schink et al. 1983. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33732. High-quality 16S rRNA sequence S000016925 (RDP), Y18190 (Genbank). N4Lid DOI: 10.1601/nm.4414
- Genus *Propionispora***^{VP} Biebl et al. 2001. N4Lid DOI: 10.1601/nm.4415
- Propionispora vibrioides*^{VP} Biebl et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13305. High-quality 16S rRNA sequence S000008602 (RDP), AJ279802 (Genbank). N4Lid DOI: 10.1601/nm.4416
- Propionispora hippei*^{VP} Abou-Zeid et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-665. High-quality 16S rRNA sequence S000351774 (RDP), AJ508927 (Genbank). N4Lid 10.1601/nm.8789
- Genus *Quinella***^{VP} Krumholz et al. 1993. N4Lid DOI: 10.1601/nm.4417
- Quinella ovalis*^{VP} Krumholz et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: no axenic culture. High-quality 16S rRNA sequence S000436605 (RDP), M62701 (Genbank). N4Lid DOI: 10.1601/nm.4418
- Genus *Schwartzia***^{VP} van Gylswyk et al. 1997. N4Lid DOI: 10.1601/nm.4419
- Schwartzia succinivorans*^{VP} van Gylswyk et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10502. High-quality 16S rRNA sequence S000001638 (RDP), Y09434 (Genbank). N4Lid DOI: 10.1601/nm.4420
- Genus *Selenomonas***^{AL} von Prowazek 1913. N4Lid DOI: 10.1601/nm.4421
- Selenomonas sputigena*^{AL} (Flügge 1886) Boskamp 1922. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35185. High-quality 16S rRNA sequence S000390719 (RDP), AF287793 (Genbank). N4Lid DOI: 10.1601/nm.4422
- Selenomonas artemidis*^{VP} Moore et al. 1987. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43528. N4Lid DOI: 10.1601/nm.4424
- Selenomonas diana*^{VP} Moore et al. 1987. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43527. High-quality 16S rRNA sequence S000390721 (RDP), AF287801 (Genbank). N4Lid DOI: 10.1601/nm.4425
- Selenomonas flueggei*^{VP} Moore et al. 1987. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43531. High-quality 16S rRNA sequence S000390723 (RDP), AF287803 (Genbank). N4Lid DOI: 10.1601/nm.4426
- Selenomonas infelix*^{VP} Moore et al. 1987. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43532. High-quality 16S rRNA sequence S000390722 (RDP), AF287802 (Genbank). N4Lid DOI: 10.1601/nm.4427
- Selenomonas lactificex*^{VP} Schleifer et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49690. High-quality 16S rRNA sequence S000392552 (RDP), AF373024 (Genbank). N4Lid DOI: 10.1601/nm.4428
- Selenomonas lipolytica*^{VP} Dighe et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CF1B. N4Lid DOI: 10.1601/nm.4429
- Selenomonas noxia*^{VP} Moore et al. 1987. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43541. High-quality 16S rRNA sequence S000390720 (RDP), AF287799 (Genbank). N4Lid DOI: 10.1601/nm.4430
- Selenomonas ruminantium subsp. ruminantium*^{AL} Bryant 1974. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 12561. High-quality 16S rRNA sequence S000436606 (RDP), M62702 (Genbank). N4Lid DOI: 10.1601/nm.4431

Selenomonas ruminantium subsp. *lactilytica*^{AL} Bryant 1956. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 19205. N4Lid DOI: 10.1601/nm.4432

Genus *Sporomusa*^{VP} Möller et al. 1985. N4Lid DOI: 10.1601/nm.4433

Sporomusa sphaeroides^{VP} Möller et al. 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35900. High-quality 16S rRNA sequence S000004840 (RDP), AJ279801 (Genbank). N4Lid DOI: 10.1601/nm.4434

Sporomusa acidovorans^{VP} Ollivier et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49682. High-quality 16S rRNA sequence S000016146 (RDP), AJ279798 (Genbank). N4Lid DOI: 10.1601/nm.4435

Sporomusa aerivorans^{VP} Boga et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-625. High-quality 16S rRNA sequence S000147123 (RDP), AJ506191 (Genbank). N4Lid 10.1601/nm.8935

Sporomusa malonica^{VP} Dehning et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49684. High-quality 16S rRNA sequence S000000658 (RDP), AJ279799 (Genbank). N4Lid DOI: 10.1601/nm.4436

Sporomusa ovata^{VP} Möller et al. 1985. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35899. High-quality 16S rRNA sequence S000014353 (RDP), AJ279800 (Genbank). N4Lid DOI: 10.1601/nm.4437

Sporomusa paucivorans^{VP} Hermann et al. 1987. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 3697. N4Lid DOI: 10.1601/nm.4438

Sporomusa rhizae^{VP} Gößner et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1028. High-quality 16S rRNA sequence S000650669 (RDP), AM158322 (Genbank). N4Lid DOI: 10.1601/nm.10202

Sporomusa silvacetica^{VP} Kuhner et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700346. High-quality 16S rRNA sequence S000008950 (RDP), Y09976 (Genbank). N4Lid DOI: 10.1601/nm.4439

Sporomusa termitida^{VP} Breznak et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49683. High-quality 16S rRNA sequence S000436587 (RDP), M61920 (Genbank). N4Lid DOI: 10.1601/nm.4440

Genus *Succiniclasticum*^{VP} van Gylswyk 1995. N4Lid DOI: 10.1601/nm.4441

Succiniclasticum ruminis^{VP} van Gylswyk 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51810. High-quality 16S rRNA sequence S000131229 (RDP), X81137 (Genbank). N4Lid DOI: 10.1601/nm.4442

Genus *Succinispira*^{VP} Janssen and O'Farrell 1999. N4Lid DOI: 10.1601/nm.4443

Succinispira mobilis^{VP} Janssen and O'Farrell 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700845. High-quality 16S rRNA sequence S000002782 (RDP), AJ006980 (Genbank). N4Lid DOI: 10.1601/nm.4444

Genus *Thermosinus*^{VP} Sokolova et al. 2004. N4Lid 10.1601/nm.8886

Thermosinus carboxydivorans^{VP} Sokolova et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14886. GOLD ID: Gi01361. GCAT ID: 001778_GCAT. Entrez genome id: 17587. Sequenced strain: DSM 14886 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid 10.1601/nm.8887

Genus *Veillonella*^{AL} Prévot 1933. N4Lid DOI: 10.1601/nm.4445

Veillonella parvula subsp. *parvula*^{AL} Rogosa 1965. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 10790. High-quality 16S rRNA sequence S000000269 (RDP), X84005 (Genbank). N4Lid DOI: 10.1601/nm.4446

Veillonella montpellierensis^{VP} Jumas-Bilak et al. 2004. ≈ *Veillonella alcalescens* (later heterotypic synonym), links through 10.1601/nm.8898. Source of type material recommended for DOE sponsored genome sequencing by the JGI: CCUG 48299. High-quality 16S rRNA sequence S000395079 (RDP), AF473836 (Genbank). N4Lid 10.1601/nm.8898

† *Veillonella alcalescens* subsp. *alcalescens*^{AL} Prévot 1933. ≈ *Veillonella parvula* subsp. *parvula* (earlier heterotypic synonym), links through 10.1601/nm.4446. Source of type material

recommended for DOE sponsored genome sequencing by the JGI: ATCC 17745. N4Lid DOI: 10.1601/nm.4449

Veillonella atypica^{VP} (Rogosa 1965) Mays et al. 1982. <== *Veillonella parvula subsp. atypica* (basonym). Synonym links through N4Lid: 10.1601/ex.4447. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17744. High-quality 16S rRNA sequence S000015427 (RDP), X84007 (Genbank). N4Lid DOI: 10.1601/nm.4453

† *Veillonella parvula subsp. atypica*^{AL} Rogosa 1965. ==> *Veillonella atypica* (new combination). Synonym links through N4Lid: 10.1601/ex.4447. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17744. High-quality 16S rRNA sequence S000015427 (RDP), X84007 (Genbank). N4Lid DOI: 10.1601/nm.4447

Veillonella caviae^{VP} Mays et al. 1982. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33540. High-quality 16S rRNA sequence S000368428 (RDP), AY355140 (Genbank). N4Lid DOI: 10.1601/nm.4454

Veillonella criceti^{VP} (Rogosa 1965) Mays et al. 1982. <== *Veillonella alcalescens subsp. criceti* (basonym). Synonym links through N4Lid: 10.1601/ex.4450. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17747. High-quality 16S rRNA sequence S000388824 (RDP), AF186072 (Genbank). N4Lid DOI: 10.1601/nm.4455

† *Veillonella alcalescens subsp. criceti*^{AL} Rogosa 1965. ==> *Veillonella criceti* (new combination). Synonym links through N4Lid: 10.1601/ex.4450. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17747. High-quality 16S rRNA sequence S000388824 (RDP), AF186072 (Genbank). N4Lid DOI: 10.1601/nm.4450

Veillonella dispar^{VP} (Rogosa 1965) Mays et al. 1982. <== *Veillonella alcalescens subsp. dispar* (basonym). Synonym links through N4Lid: 10.1601/ex.4451. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17748. High-quality 16S rRNA sequence S000008225 (RDP), X84006 (Genbank). N4Lid DOI: 10.1601/nm.4456

† *Veillonella alcalescens subsp. dispar*^{AL} Rogosa 1965. ==> *Veillonella dispar* (new combination). Synonym links through N4Lid: 10.1601/ex.4451. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17748. High-quality 16S rRNA sequence S000008225 (RDP), X84006 (Genbank). N4Lid DOI: 10.1601/nm.4451

Veillonella ratti^{VP} (Rogosa 1965) Mays et al. 1982. <== *Veillonella alcalescens subsp. ratti* (basonym). Synonym links through N4Lid: 10.1601/ex.4452. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17746. High-quality 16S rRNA sequence S000368427 (RDP), AY355138 (Genbank). N4Lid DOI: 10.1601/nm.4457

† *Veillonella alcalescens subsp. ratti*^{AL} Rogosa 1965. ==> *Veillonella ratti* (new combination). Synonym links through N4Lid: 10.1601/ex.4452. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17746. High-quality 16S rRNA sequence S000368427 (RDP), AY355138 (Genbank). N4Lid DOI: 10.1601/nm.4452

Veillonella rodentium^{VP} (Rogosa 1965) Mays et al. 1982. <== *Veillonella parvula subsp. rodentium* (basonym). Synonym links through N4Lid: 10.1601/ex.4448. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17743. N4Lid DOI: 10.1601/nm.4458

† *Veillonella parvula subsp. rodentium*^{AL} Rogosa 1965. ==> *Veillonella rodentium* (new combination). Synonym links through N4Lid: 10.1601/ex.4448. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 17743. N4Lid DOI: 10.1601/nm.4448

Genus *Zymophilus*^{VP} Schleifer et al. 1990. N4Lid DOI: 10.1601/nm.4459

Zymophilus raffinovorans^{VP} Schleifer et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49691. N4Lid DOI: 10.1601/nm.4460

Zymophilus paucivorans^{VP} Schleifer et al. 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49689. High-quality 16S rRNA sequence S000392553 (RDP), AF373025 (Genbank). N4Lid DOI: 10.1601/nm.4461

Family *Syntrophomonadaceae*^{VP} Zhao et al 1993. N4Lid DOI: 10.1601/nm.4462

Genus *Syntrophomonas*^{VP} McInerney et al. 1982. ≈ *Syntrophomonas* (later heterotypic synonym), links through 10.1601/nm.4463. N4Lid DOI: 10.1601/nm.4463

- Syntrophomonas wolfei subsp. wolfei*^{VP} McInerney et al. 1982. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 2245A. GOLD ID: Gc00427. GCAT ID: 000183_GCAT. Entrez genome id: 13014. Sequenced strain: DSM 2245B is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4464
- Syntrophomonas wolfei subsp. saponavida*^{VP} Lorowitz et al. 1989. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 4212. N4Lid DOI: 10.1601/nm.4465
- Syntrophomonas curvata*^{VP} Zhang et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15682. High-quality 16S rRNA sequence S000357627 (RDP), AY290767 (Genbank). N4Lid 10.1601/nm.8878
- Syntrophomonas erecta*^{VP} Zhang et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16215. High-quality 16S rRNA sequence S000503166 (RDP), AY536889 (Genbank). N4Lid 10.1601/nm.9322
- Syntrophomonas sapovorans*^{VP} Roy et al. 1987. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 3441. High-quality 16S rRNA sequence S000387177 (RDP), AF022249 (Genbank). N4Lid DOI: 10.1601/nm.4466
- Genus** † *Syntrophospora*^{VP} Zhao et al. 1990. ≈ *Syntrophomonas* (earlier heterotypic synonym), links through 10.1601/nm.4463. N4Lid DOI: 10.1601/nm.4494
- Genus** *Aminobacterium*^{VP} Baena et al. 1999. N4Lid DOI: 10.1601/nm.4469
- Aminobacterium colombiense*^{VP} Baena et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12261. High-quality 16S rRNA sequence S000428384 (RDP), AF069287 (Genbank). N4Lid DOI: 10.1601/nm.4470
- Aminobacterium mobile*^{VP} Baena et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-7. High-quality 16S rRNA sequence S000428451 (RDP), AF073521 (Genbank). N4Lid DOI: 10.1601/nm.4471
- Genus** *Aminomonas*^{VP} Baena et al. 1999. N4Lid DOI: 10.1601/nm.4472
- Aminomonas paucivorans*^{VP} Baena et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-6. High-quality 16S rRNA sequence S000428430 (RDP), AF072581 (Genbank). N4Lid DOI: 10.1601/nm.4473
- Genus** *Anaerobaculum*^{VP} Rees et al. 1997. N4Lid DOI: 10.1601/nm.4474
- Anaerobaculum thermoterrenum*^{VP} Rees et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13490. N4Lid DOI: 10.1601/nm.4475
- Anaerobaculum mobile*^{VP} Menes and Muxí 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-54. High-quality 16S rRNA sequence S000018874 (RDP), AJ243189 (Genbank). N4Lid DOI: 10.1601/nm.4476
- Genus** *Anaerobranca*^{VP} Engle et al. 1995. N4Lid DOI: 10.1601/nm.4477
- Anaerobranca horikoshii*^{VP} Engle et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700319. High-quality 16S rRNA sequence S000437269 (RDP), U21809 (Genbank). N4Lid DOI: 10.1601/nm.4478
- Anaerobranca californiensis*^{VP} Gorlenko et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14826. High-quality 16S rRNA sequence S000354814 (RDP), AY064217 (Genbank). N4Lid DOI: 10.1601/nm.8461
- Anaerobranca gottschalkii*^{VP} Prowe and Antranikian 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-51. High-quality 16S rRNA sequence S000389038 (RDP), AF203703 (Genbank). GOLD ID: Gi00025. GCAT ID: 000698_GCAT. Entrez genome id: 13007. Sequenced strain: AZ 13040/09 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4479
- Genus** *Caldicellulosiruptor*^{VP} Rainey et al. 1995. N4Lid DOI: 10.1601/nm.4480
- Caldicellulosiruptor kristjanssonii*^{VP} Bredholt et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700853. High-quality 16S rRNA sequence S000130733 (RDP), AJ004811 (Genbank). N4Lid DOI: 10.1601/nm.4481

- Caldicellulosiruptor acetigenus*^{VP} (Nielsen et al. 1994) Onyenwoke et al. 2006. <== *Thermoanaerobium acetigenum* (basonym). Synonym links through N4Lid: 10.1601/ex.4564. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1149. High-quality 16S rRNA sequence S000454134 (RDP), AY772476 (Genbank). N4Lid 10.1601/nm.9793
- † *Thermoanaerobium acetigenum*^{VP} Nielsen et al. 1994. ==> *Caldicellulosiruptor acetigenus* (new combination). Synonym links through N4Lid: 10.1601/ex.4564. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 7040. High-quality 16S rRNA sequence S000454134 (RDP), AY772476 (Genbank). N4Lid DOI: 10.1601/nm.4564
- Caldicellulosiruptor lactoaceticus*^{VP} Mladenovska et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9545. High-quality 16S rRNA sequence S000006584 (RDP), X82842 (Genbank). N4Lid DOI: 10.1601/nm.4482
- Caldicellulosiruptor owensensis*^{VP} Huang et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700167. High-quality 16S rRNA sequence S000438493 (RDP), U80596 (Genbank). N4Lid DOI: 10.1601/nm.4483
- Caldicellulosiruptor saccharolyticus*^{VP} Rainey et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43494. GOLD ID: Gi00929. GCAT ID: 000818_GCAT. Entrez genome id: 13466. Sequenced strain: DSM 8903 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4484
- Genus *Carboxydocella***^{VP} Sokolova et al. 2002. N4Lid DOI: 10.1601/nm.4485
- Carboxydocella thermotrophica*^{VP} Sokolova et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12326. High-quality 16S rRNA sequence S000540400 (RDP), AY061974 (Genbank). N4Lid DOI: 10.1601/nm.4486
- Carboxydocella sporoproducens*^{VP} Slepova et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 16521. High-quality 16S rRNA sequence S000374668 (RDP), AY673988 (Genbank). N4Lid 10.1601/nm.9982
- Genus *Dethiosulfovibrio***^{VP} Magot et al. 1997. N4Lid DOI: 10.1601/nm.4487
- Dethiosulfovibrio peptidovorans*^{VP} Magot et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11002. High-quality 16S rRNA sequence S000437775 (RDP), U52817 (Genbank). N4Lid DOI: 10.1601/nm.4488
- Dethiosulfovibrio acidaminovorans*^{VP} Surkov et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12590. High-quality 16S rRNA sequence S000434337 (RDP), AY005466 (Genbank). N4Lid DOI: 10.1601/nm.4489
- Dethiosulfovibrio marinus*^{VP} Surkov et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12537. High-quality 16S rRNA sequence S000389736 (RDP), AF234542 (Genbank). N4Lid DOI: 10.1601/nm.4490
- Dethiosulfovibrio russensis*^{VP} Surkov et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12538. High-quality 16S rRNA sequence S000389736 (RDP), AF234542 (Genbank). N4Lid DOI: 10.1601/nm.4491
- Genus *Pelospira***^{VP} Matthies et al. 2000. N4Lid DOI: 10.1601/nm.4492
- Pelospira glutarica*^{VP} Matthies et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-162. High-quality 16S rRNA sequence S000022758 (RDP), AJ251214 (Genbank). N4Lid DOI: 10.1601/nm.4493
- Syntrophospora bryantii*^{VP} (Stieb and Schink 1985) Zhao et al. 1990. <== *Clostridium bryantii* (basonym). Synonym links through N4Lid: 10.1601/ex.3903. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 3014A. N4Lid DOI: 10.1601/nm.4495
- † *Clostridium bryantii*^{VP} Stieb and Schink 1985. ==> *Syntrophospora bryantii* (new combination). Synonym links through N4Lid: 10.1601/ex.3903. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 3014A. N4Lid DOI: 10.1601/nm.3903
- Genus *Syntrophothermus***^{VP} Sekiguchi et al. 2000. N4Lid DOI: 10.1601/nm.4496

Syntrophothermus lipocalidus^{VP} Sekiguchi et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12680. High-quality 16S rRNA sequence S000382531 (RDP), AB021305 (Genbank). N4Lid DOI: 10.1601/nm.4497

Genus *Thermaerobacter*^{VP} Takai et al. 1999. N4Lid DOI: 10.1601/nm.4498

Thermaerobacter marianensis^{VP} Takai et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700841. High-quality 16S rRNA sequence S000021602 (RDP), AB011495 (Genbank). N4Lid DOI: 10.1601/nm.4499

Thermaerobacter litoralis^{VP} Tanaka et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 17372. High-quality 16S rRNA sequence S000494775 (RDP), AY936496 (Genbank). N4Lid DOI: 10.1601/nm.10153

Thermaerobacter nagasakiensis^{VP} Nunoura et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14512. High-quality 16S rRNA sequence S000122191 (RDP), AB061441 (Genbank). N4Lid DOI: 10.1601/nm.4500

Thermaerobacter subterraneus^{VP} Spanevello et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-137. High-quality 16S rRNA sequence S000391983 (RDP), AF343566 (Genbank). N4Lid DOI: 10.1601/nm.4501

Genus *Thermanaerovibrio*^{VP} Baena et al. 1999. N4Lid DOI: 10.1601/nm.4502

Thermanaerovibrio acidaminovorans^{VP} (Guangsheng et al. 1997) Baena et al. 1999. <== *Selenomonas acidaminovorans* (basonym). Synonym links through N4Lid: 10.1601/ex.4423. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49978. High-quality 16S rRNA sequence S000428416 (RDP), AF071414 (Genbank). N4Lid DOI: 10.1601/nm.4503

† *Selenomonas acidaminovorans*^{VP} Guangsheng et al. 1997. ==> *Thermanaerovibrio acidaminovorans* (new combination). Synonym links through N4Lid: 10.1601/ex.4423. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49978. High-quality 16S rRNA sequence S000428416 (RDP), AF071414 (Genbank). N4Lid DOI: 10.1601/nm.4423

Thermanaerovibrio velox^{VP} Zavarzina et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12556. High-quality 16S rRNA sequence S000388382 (RDP), AF161069 (Genbank). N4Lid DOI: 10.1601/nm.4504

Genus *Thermohydrogenium*^{VP} Zacharova et al. 1996. N4Lid DOI: 10.1601/nm.4505

Thermohydrogenium kirishiense^{VP} Zacharova et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51438. N4Lid DOI: 10.1601/nm.4506

Genus *Thermosyntropha*^{VP} Svetlitsnyi et al. 1996. N4Lid DOI: 10.1601/nm.4507

Thermosyntropha lipolytica^{VP} Svetlitsnyi et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700317. High-quality 16S rRNA sequence S000012437 (RDP), X99980 (Genbank). N4Lid DOI: 10.1601/nm.4508

Genus *Thermovirga*^{VP} Dahle and Birkeland 2006. N4Lid DOI: 10.1601/nm.10182

Thermovirga lienii^{VP} Dahle and Birkeland 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1197. High-quality 16S rRNA sequence S000624863 (RDP), DQ071273 (Genbank). N4Lid DOI: 10.1601/nm.10181

Order "*Thermoanaerobacteriales*" N4Lid DOI: 10.1601/nm.4509

Family "*Thermoanaerobacteriaceae*" N4Lid DOI: 10.1601/nm.4510

Genus *Thermoanaerobacterium*^{VP} Lee et al. 1993. N4Lid DOI: 10.1601/nm.4511

Thermoanaerobacterium thermosulfurigenes^{VP} (Schink and Zeikus 1983) Lee et al. 1993. <== *Clostridium thermosulfurigenes* (basonym). Synonym links through N4Lid: 10.1601/ex.4045. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33743. High-quality 16S rRNA sequence S000131316 (RDP), X58351 (Genbank). N4Lid DOI: 10.1601/nm.4512

† *Clostridium thermosulfurigenes*^{VP} corrig. Schink and Zeikus 1983. ==> *Thermoanaerobacterium thermosulfurigenes* (new combination). Synonym links through N4Lid: 10.1601/ex.4045. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33743. High-quality 16S rRNA sequence S000131316 (RDP), X58351 (Genbank). N4Lid DOI: 10.1601/nm.4045

Thermoanaerobacterium aotearoense^{VP} Liu et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10170. High-quality 16S rRNA sequence S000007392 (RDP), X93359 (Genbank). N4Lid DOI: 10.1601/nm.4513

Thermoanaerobacterium polysaccharolyticum^{VP} Cann et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-17. High-quality 16S rRNA sequence S000437566 (RDP), U40229 (Genbank). N4Lid DOI: 10.1601/nm.4514

Thermoanaerobacterium saccharolyticum^{VP} Lee et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49915. High-quality 16S rRNA sequence S000414347 (RDP), L09169 (Genbank). GOLD ID: Gi01360. GCAT ID: 001777_GCAT. Sequenced strain: JW/SL-YS485 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.4515

Thermoanaerobacterium thermosaccharolyticum^{VP} (McClung 1935) Collins et al. 1994. <== *Clostridium thermosaccharolyticum* (basonym). Synonym links through N4Lid: 10.1601/ex.4043. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 7956. High-quality 16S rRNA sequence S000436482 (RDP), M59119 (Genbank). N4Lid DOI: 10.1601/nm.4516

† *Clostridium thermosaccharolyticum*^{AL} McClung 1935. ==> *Thermoanaerobacterium thermosaccharolyticum* (new combination). Synonym links through N4Lid: 10.1601/ex.4043. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 7956. High-quality 16S rRNA sequence S000436482 (RDP), M59119 (Genbank). N4Lid DOI: 10.1601/nm.4043

Thermoanaerobacterium xylanolyticum^{VP} Lee et al. 1993. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49914. High-quality 16S rRNA sequence S000414350 (RDP), L09172 (Genbank). N4Lid DOI: 10.1601/nm.4517

Thermoanaerobacterium zae^{VP} Cann et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-16. High-quality 16S rRNA sequence S000438421 (RDP), U75993 (Genbank). N4Lid DOI: 10.1601/nm.4518

Genus † *Acetogenium*^{VP} Leigh and Wolfe 1983. Unified with *Thermoanaerobacter*, links through 10.1601/nm.5307. N4Lid DOI: 10.1601/nm.4467

Genus *Ammonifex*^{VP} Huber and Stetter 1996. N4Lid DOI: 10.1601/nm.4519

Ammonifex degensii^{VP} Huber and Stetter 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 10501. High-quality 16S rRNA sequence S000437500 (RDP), U34975 (Genbank). GOLD ID: Gi00784. GCAT ID: 000696_GCAT. Entrez genome id: 12390. Sequenced strain: DSM 10501 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4520

Genus *Caldanaerobacter*^{VP} Fardeau et al. 2004. ≈ *Caldanaerobacter* (later heterotypic synonym), links through 10.1601/nm.4521. N4Lid DOI: 10.1601/nm.4521

Caldanaerobacter subterraneus subsp. subterraneus^{VP} (Fardeau et al. 2000) Fardeau et al. 2004. <== *Thermoanaerobacter subterraneus* (basonym). Synonym links through N4Lid: 10.1601/ex.4555. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-225. High-quality 16S rRNA sequence S000388943 (RDP), AF195797 (Genbank). N4Lid DOI: 10.1601/nm.4522

† *Thermoanaerobacter subterraneus*^{VP} Fardeau et al. 2000. ==> *Caldanaerobacter subterraneus subsp. subterraneus* (new combination). Synonym links through N4Lid: 10.1601/ex.4555. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-225. High-quality 16S rRNA sequence S000388943 (RDP), AF195797 (Genbank). N4Lid DOI: 10.1601/nm.4555

† *Caldanaerobacter subterraneus subsp. pacificus*^{VP} Fardeau et al. 2004. *Carboxydibrachium pacificum* (illegitimate name), links through 10.1601/./<link>. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-271. High-quality 16S rRNA sequence S000388584 (RDP), AF174484 (Genbank). GOLD ID: Gi01406. GCAT ID: 000862_GCAT. Sequenced strain: DSM 12653 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 0 (NCBI). N4Lid DOI: 10.1601/nm.4523

Carboxydibrachium pacificum^{VP} corrig. Sokolova et al. 2001. Illegitimate name, *Caldanaerobacter subterraneus pacificus* (new combination). Synonym links through N4Lid: 10.1601/ex.4527. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-271. High-quality 16S rRNA sequence S000388584 (RDP), AF174484 (Genbank). GOLD ID: Gi01406. GCAT ID: 000862_GCAT. Sequenced strain: DSM 12653 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD). N4Lid DOI: 10.1601/nm.4527

† *Caldanaerobacter subterraneus subsp. tengcongensis*^{VP} (Xue et al. 2001) Fardeau et al. 2004. *Thermoanaerobacter tengcongensis* (illegitimate name), links through 10.1601./<link>. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15242. High-quality 16S rRNA sequence S000389130 (RDP), AF209708 (Genbank). GOLD ID: Gc00086. GCAT ID: 000524_GCAT. Entrez genome id: 249. Sequenced strain: JCM 11007 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4524

† *Thermoanaerobacter tengcongensis*^{VP} Xue et al. 2001. ==> *Caldanaerobacter subterraneus subsp. tengcongensis* (new combination). Synonym links through N4Lid: 10.1601/ex.4557. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15242. High-quality 16S rRNA sequence S000389130 (RDP), AF209708 (Genbank). GOLD ID: Gc00086. GCAT ID: 000524_GCAT. Entrez genome id: 249. Sequenced strain: JCM 11007 is type material. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4557

Caldanaerobacter subterraneus subsp. yonseiensis^{VP} (Kim et al. 2001) Fardeau et al. 2004. <== *Thermoanaerobacter yonseiensis* (basonym). Synonym links through N4Lid: 10.1601/ex.4561. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13777. High-quality 16S rRNA sequence S000389225 (RDP), AF212925 (Genbank). N4Lid DOI: 10.1601/nm.4525

† *Thermoanaerobacter yonseiensis*^{VP} Kim et al. 2001. ==> *Caldanaerobacter subterraneus subsp. yonseiensis* (new combination). Synonym links through N4Lid: 10.1601/ex.4561. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13777. High-quality 16S rRNA sequence S000389225 (RDP), AF212925 (Genbank). N4Lid DOI: 10.1601/nm.4561

Genus † *Carboxydibrachium*^{VP} corrig. Sokolova et al. 2001. ≈ *Caldanaerobacter* (earlier heterotypic synonym), links through 10.1601./nm.4521. N4Lid DOI: 10.1601/nm.4526

Genus *Coprothermobacter*^{VP} Rainey and Stackebrandt 1993. N4Lid DOI: 10.1601/nm.4528

Coprothermobacter proteolyticus^{VP} (Ollivier et al. 1985) Rainey and Stackebrandt 1993. <== *Thermobacteroides proteolyticus* (basonym). Synonym links through N4Lid: 10.1601/ex.4529. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35245. High-quality 16S rRNA sequence S000127397 (RDP), X69335 (Genbank). GOLD ID: Gi00739. GCAT ID: 000976_GCAT. Entrez genome id: 12522. Sequenced strain: DSM 5265 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4529

† *Thermobacteroides proteolyticus*^{VP} Ollivier et al. 1985. ==> *Coprothermobacter proteolyticus* (new combination). Synonym links through N4Lid: 10.1601/ex.4529. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35245. High-quality 16S rRNA sequence S000127397 (RDP), X69335 (Genbank). GOLD ID: Gi00739. GCAT ID: 000976_GCAT. Entrez genome id: 12522. Sequenced strain: DSM 5265 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid 10.1601/nm.9135

Coprothermobacter platensis^{VP} Etchebehere et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11748. High-quality 16S rRNA sequence S000020185 (RDP), Y08935 (Genbank). N4Lid DOI: 10.1601/nm.4530

Genus *Gelria*^{VP} Plugge et al. 2002. N4Lid DOI: 10.1601/nm.4531

Gelria glutamica^{VP} Plugge et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-262. High-quality 16S rRNA sequence S000391487 (RDP), AF321086 (Genbank). N4Lid DOI: 10.1601/nm.4532

Genus *Mahella*^{VP} Bonilla Salinas et al. 2004. N4Lid 10.1601/nm.8678

Mahella australiensis^{VP} Bonilla Salinas et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15567. High-quality 16S rRNA sequence S000461140 (RDP), AY331143 (Genbank). N4Lid 10.1601/nm.8679

Genus *Moorella*^{VP} Collins et al. 1994. N4Lid DOI: 10.1601/nm.4533

Moorella thermoacetica^{VP} (Fontaine et al. 1942) Collins et al. 1994. <== *Clostridium thermacetium* (basonym). Synonym links through N4Lid: 10.1601/ex.4033. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35608. High-quality 16S rRNA sequence S000721383 (RDP). GOLD ID: Gc00397. GCAT ID: 000214_GCAT. Entrez genome id: 10648. Sequenced strain: ATCC 39073 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4534

† *Clostridium thermacetium*^{AL} corrig. Fontaine et al. 1942. ==> *Moorella thermoacetica* (new combination). Synonym links through N4Lid: 10.1601/ex.4033. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35608. GOLD ID: Gc00397. GCAT ID: 000214_GCAT. Entrez genome id: 10648. Sequenced strain: ATCC 39073 is from a non-type strain. Genome sequencing is completed. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4033

Moorella glycerini^{VP} Slobodkin et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700316. High-quality 16S rRNA sequence S000438509 (RDP), U82327 (Genbank). N4Lid DOI: 10.1601/nm.4535

Moorella mulderi^{VP} Balk et al. 2005. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-608. High-quality 16S rRNA sequence S000124289 (RDP), AF487538 (Genbank). N4Lid 10.1601/nm.8708

Moorella thermoautotrophica^{VP} (Wiegel et al. 1982) Collins et al. 1994. <== *Clostridium thermoautotrophicum* (basonym). Synonym links through N4Lid: 10.1601/ex.4034. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33924. High-quality 16S rRNA sequence S000260170 (RDP), X77849 (Genbank). N4Lid DOI: 10.1601/nm.4536

† *Clostridium thermoautotrophicum*^{VP} corrig. Wiegel et al. 1982. ==> *Moorella thermoautotrophica* (new combination). Synonym links through N4Lid: 10.1601/ex.4034. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33924. High-quality 16S rRNA sequence S000260170 (RDP), X77849 (Genbank). N4Lid DOI: 10.1601/nm.4034

Genus *Sporotomaculum*^{VP} Brauman et al. 1998. N4Lid DOI: 10.1601/nm.4537

Sporotomaculum hydroxybenzoicum^{VP} Brauman et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700645. High-quality 16S rRNA sequence S000126672 (RDP), Y14845 (Genbank). N4Lid DOI: 10.1601/nm.4538

Sporotomaculum syntrophicum^{VP} Qiu et al. 2003. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14795. High-quality 16S rRNA sequence S000116588 (RDP), AB076610 (Genbank). N4Lid DOI: 10.1601/nm.4539

Genus *Tepidanaerobacter*^{VP} Sekiguchi et al. 2006. N4Lid DOI: 10.1601/nm.10155

Tepidanaerobacter syntrophicus^{VP} Sekiguchi et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 15584. High-quality 16S rRNA sequence S000118083 (RDP), AB106353 (Genbank). N4Lid DOI: 10.1601/nm.10154

Genus *Thermacetogenium*^{VP} Hattori et al. 2000. N4Lid DOI: 10.1601/nm.4540

Thermacetogenium phaeum^{VP} Hattori et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-254. High-quality 16S rRNA sequence S000000935 (RDP), AB020336 (Genbank). N4Lid DOI: 10.1601/nm.4541

Genus *Thermanaeromonas*^{VP} Mori et al. 2002. N4Lid DOI: 10.1601/nm.4542

Thermanaeromonas toyohensis^{VP} Mori et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14490. High-quality 16S rRNA sequence S000383946 (RDP), AB062280 (Genbank). N4Lid DOI: 10.1601/nm.4543

Genus *Thermoanaerobacter*^{VP} Wiegel and Ljungdahl 1982. N4Lid DOI: 10.1601/nm.4544

Thermoanaerobacter ethanolicus^{VP} Wiegel and Ljungdahl 1982. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 31550. High-quality 16S

rRNA sequence S000414340 (RDP), L09162 (Genbank). GOLD ID: Gi00653. GCAT ID: 001600_GCAT. Entrez genome id: 13901. Sequenced strain: ATCC 33223 is from a non-type strain. Genome sequencing is incomplete. Number of genomes of this species sequenced 2 (GOLD) 2 (NCBI). N4Lid DOI: 10.1601/nm.4545

Thermoanaerobacter acetoethylicus^{VP} (Ben-Bassat and Zeikus 1983) Rainey and Stackebrandt 1993. <== *Thermobacteroides acetoethylicus* (basonym). Synonym links through N4Lid: 10.1601/ex.4546. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33265. High-quality 16S rRNA sequence S000127963 (RDP), X69336 (Genbank). N4Lid DOI: 10.1601/nm.4546

† *Thermobacteroides acetoethylicus*^{VP} Ben-Bassat and Zeikus 1983. ==> *Thermoanaerobacter acetoethylicus* (new combination). Synonym links through N4Lid: 10.1601/ex.4546. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33265. High-quality 16S rRNA sequence S000127963 (RDP), X69336 (Genbank). N4Lid DOI: 10.1601/nm.9117

Thermoanaerobacter brockii subsp. *brockii*^{VP} (Zeikus et al. 1983) Lee et al. 1993. <== *Thermoanaerobium brockii* (basonym). Synonym links through N4Lid: 10.1601/ex.4563. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33075. High-quality 16S rRNA sequence S000414343 (RDP), L09165 (Genbank). N4Lid DOI: 10.1601/nm.4547

† *Thermoanaerobium brockii*^{VP} Zeikus et al. 1983. ==> *Thermoanaerobacter brockii* subsp. *brockii* (new combination). Synonym links through N4Lid: 10.1601/ex.4563. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33075. High-quality 16S rRNA sequence S000414343 (RDP), L09165 (Genbank). N4Lid DOI: 10.1601/nm.4563

Thermoanaerobacter brockii subsp. *finnii*^{VP} (Schmid et al. 1986) Cayol et al. 1995. <== *Thermoanaerobacter finnii* (basonym). Synonym links through N4Lid: 10.1601/ex.4550. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43586. High-quality 16S rRNA sequence S000414344 (RDP), L09166 (Genbank). N4Lid DOI: 10.1601/nm.4548

† *Thermoanaerobacter finnii*^{VP} Schmid et al. 1986. ==> *Thermoanaerobacter brockii* subsp. *finnii* (new combination). Synonym links through N4Lid: 10.1601/ex.4550. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43586. High-quality 16S rRNA sequence S000414344 (RDP), L09166 (Genbank). N4Lid DOI: 10.1601/nm.4550

Thermoanaerobacter brockii subsp. *lactiethylicus*^{VP} Cayol et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9801. High-quality 16S rRNA sequence S000437159 (RDP), U14330 (Genbank). N4Lid DOI: 10.1601/nm.4549

Thermoanaerobacter italicus^{VP} Kozianowski et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9252. High-quality 16S rRNA sequence S000126566 (RDP), AJ250846 (Genbank). N4Lid DOI: 10.1601/nm.4551

Thermoanaerobacter kivui^{VP} (Leigh and Wolfe 1983) Collins et al. 1994. <== *Acetogenium kivui* (basonym). Synonym links through N4Lid: 10.1601/ex.4468. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33488. High-quality 16S rRNA sequence S000414338 (RDP), L09160 (Genbank). N4Lid DOI: 10.1601/nm.4552

† *Acetogenium kivui*^{VP} Leigh and Wolfe 1983. ==> *Thermoanaerobacter kivui* (new combination). Synonym links through N4Lid: 10.1601/ex.4468. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33488. High-quality 16S rRNA sequence S000414338 (RDP), L09160 (Genbank). N4Lid DOI: 10.1601/nm.4468

Thermoanaerobacter mathranii^{VP} Larsen et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11426. High-quality 16S rRNA sequence S000008574 (RDP), Y11279 (Genbank). N4Lid DOI: 10.1601/nm.4553

Thermoanaerobacter siderophilus^{VP} Slobodkin et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12299. High-quality 16S rRNA sequence S000009537 (RDP), AF120479 (Genbank). N4Lid DOI: 10.1601/nm.4554

Thermoanaerobacter sulfurophilus^{VP} Bonch-Osmolovskaya 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11584. High-quality 16S rRNA sequence S000009713 (RDP), Y16940 (Genbank). N4Lid DOI: 10.1601/nm.4556

Thermoanaerobacter thermocopriae^{VP} (Jin et al. 1988) Collins et al. 1994. <== *Clostridium thermocopriae* (basonym). Synonym links through N4Lid: 10.1601/ex.4038. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51646. High-quality 16S rRNA sequence S000414345 (RDP), L09167 (Genbank). N4Lid DOI: 10.1601/nm.4558

† *Clostridium thermocopriae*^{VP} Jin et al. 1988. ==> *Thermoanaerobacter thermocopriae* (new combination). Synonym links through N4Lid: 10.1601/ex.4038. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51646. High-quality 16S rRNA sequence S000414345 (RDP), L09167 (Genbank). N4Lid DOI: 10.1601/nm.4038

Thermoanaerobacter thermohydrosulfuricus^{VP} (Klaushofer and Parkkinen 1965) Lee et al. 1993. <== *Clostridium thermohydrosulfuricum* (basonym). Synonym links through N4Lid: 10.1601/ex.4039. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35045. High-quality 16S rRNA sequence S000414339 (RDP), L09161 (Genbank). N4Lid DOI: 10.1601/nm.4559

† *Clostridium thermohydrosulfuricum*^{AL} Klaushofer and Parkkinen 1965. ==> *Thermoanaerobacter thermohydrosulfuricus* (new combination). Synonym links through N4Lid: 10.1601/ex.4039. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35045. High-quality 16S rRNA sequence S000414339 (RDP), L09161 (Genbank). N4Lid DOI: 10.1601/nm.4039

Thermoanaerobacter wieselii^{VP} Cook et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700043. High-quality 16S rRNA sequence S000381352 (RDP), X92513 (Genbank). N4Lid DOI: 10.1601/nm.4560

Genus † *Thermoanaerobium*^{VP} Zeikus et al. 1983. Unified with *Thermoanaerobacter*, links through 10.1601/nm.5307. N4Lid DOI: 10.1601/nm.4562

Genus † *Thermobacteroides*^{VP} Ben-Bassat and Zeikus 1983. Unified with *Thermoanaerobacter*, links through 10.1601/nm.5307. N4Lid DOI: 10.1601/nm.9115

Genus *Thermosediminibacter*^{VP} Lee et al. 2006. N4Lid DOI: 10.1601/nm.10079

Thermosediminibacter litoriperuensis^{VP} Lee et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1035. High-quality 16S rRNA sequence S000594899 (RDP), AY703479 (Genbank). N4Lid DOI: 10.1601/nm.10080

Thermosediminibacter oceani^{VP} Lee et al. 2006. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-1034. High-quality 16S rRNA sequence S000594898 (RDP), AY703478 (Genbank). N4Lid DOI: 10.1601/nm.10078

Genus *Thermovenabulum*^{VP} Zavarzina et al. 2002. N4Lid DOI: 10.1601/nm.4565

Thermovenabulum ferriorganovorum^{VP} Zavarzina et al. 2002. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14006. High-quality 16S rRNA sequence S000434673 (RDP), AY033493 (Genbank). N4Lid DOI: 10.1601/nm.4566

Family *Thermodesulfobiaceae*^{VP} Mori et al. 2004. N4Lid DOI: 10.1601/nm.4567

Genus *Thermodesulfobium*^{VP} Mori et al. 2004. N4Lid DOI: 10.1601/nm.4568

Thermodesulfobium narugense^{VP} Mori et al. 2004. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 14796. High-quality 16S rRNA sequence S000384714 (RDP), AB077817 (Genbank). N4Lid DOI: 10.1601/nm.4569

Order *Halanaerobiales*^{VP} corrig Rainey and Zhilina 1995. N4Lid DOI: 10.1601/nm.4570

Family *Halanaerobiaceae*^{VP} corrig Oren et al 1984. N4Lid DOI: 10.1601/nm.4571

Genus *Halanaerobium*^{VP} corrig. Zeikus et al. 1984. ~ *Halanaerobium* (later heterotypic synonym), links through 10.1601/nm.4572. N4Lid DOI: 10.1601/nm.4572

Halanaerobium praevalens^{VP} corrig. Zeikus et al. 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 33744. High-quality 16S rRNA sequence S000436486 (RDP), M59123 (Genbank). N4Lid DOI: 10.1601/nm.4573

Halanaerobium acetethylicum^{VP} corrig. (Rengpipat et al. 1989) Rainey et al. 1995. <== *Halobacteroides acetoethylicus* (basonym). Synonym links through N4Lid: 10.1601/ex.4590. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43120. High-quality 16S rRNA sequence S000437482 (RDP), U32594 (Genbank). N4Lid DOI: 10.1601/nm.4574

- † *Halobacteroides acetoethylicus*^{VP} Rengpipat et al. 1989. ==> *Halanaerobium acetethylicum* (new combination). Synonym links through N4Lid: 10.1601/ex.4590. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43120. High-quality 16S rRNA sequence S000437482 (RDP), U32594 (Genbank). N4Lid DOI: 10.1601/nm.4590
- Halanaerobium alcaliphilum*^{VP} corrig. Tsai et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 8275. High-quality 16S rRNA sequence S000014638 (RDP), X81850 (Genbank). N4Lid DOI: 10.1601/nm.4575
- Halanaerobium congolense*^{VP} corrig. Ravot et al. 1998. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 11287. High-quality 16S rRNA sequence S000438441 (RDP), U76632 (Genbank). N4Lid DOI: 10.1601/nm.4576
- Halanaerobium fermentans*^{VP} corrig. Kobayashi et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: JCM 10494. High-quality 16S rRNA sequence S000382666 (RDP), AB023308 (Genbank). N4Lid DOI: 10.1601/nm.4577
- Halanaerobium kushneri*^{VP} corrig. Bhupathiraju et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700103. High-quality 16S rRNA sequence S000438630 (RDP), U86446 (Genbank). N4Lid DOI: 10.1601/nm.4578
- Halanaerobium lacusrosei*^{VP} corrig. Cayol et al. 1995. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700560. High-quality 16S rRNA sequence S000435928 (RDP), L39787 (Genbank). N4Lid DOI: 10.1601/nm.4579
- Halanaerobium saccharolyticum* subsp. *saccharolyticum*^{VP} corrig. (Zhilina et al. 1992) Rainey et al. 1995. <== *Haloicola saccharolyticus* subsp. *saccharolyticus* (basonym). Synonym links through N4Lid: 10.1601/ex.4580. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 6643. High-quality 16S rRNA sequence S000276245 (RDP), X89069 (Genbank). N4Lid DOI: 10.1601/nm.4580
- † *Haloicola saccharolyticus*^{VP} corrig. Zhilina et al. 1992. <==Synonym links through N4Lid: 10.1601/ex.4580. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 6643. High-quality 16S rRNA sequence S000276245 (RDP), X89069 (Genbank). N4Lid 10.1601/nm.9174
- † *Haloicola saccharolyticus* subsp. *saccharolyticus*^{VP} corrig. Zhilina et al. 1992. ==> *Halanaerobium saccharolyticum* subsp. *saccharolyticum* (new combination). Synonym links through N4Lid: 10.1601/ex.4580. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 43120. High-quality 16S rRNA sequence S000276245 (RDP), X89069 (Genbank). N4Lid 10.1601/nm.9183
- Halanaerobium saccharolyticum* subsp. *senegalense*^{VP} corrig. (Cayol et al. 1994) Rainey et al. 1995. <== *Haloicola saccharolyticus* subsp. *senegalensis* (basonym). Synonym links through N4Lid: 10.1601/ex.4581. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 7379. High-quality 16S rRNA sequence S000276984 (RDP), X89070 (Genbank). N4Lid DOI: 10.1601/nm.4581
- † *Haloicola saccharolyticus* subsp. *senegalensis*^{VP} corrig. Cayol et al. 1994. ==> *Halanaerobium saccharolyticum* subsp. *senegalense* (new combination). Synonym links through N4Lid: 10.1601/ex.4581. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 6643. High-quality 16S rRNA sequence S000276984 (RDP), X89070 (Genbank). N4Lid 10.1601/nm.9184
- Halanaerobium salsuginis*^{VP} corrig. Bhupathiraju et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 51327. High-quality 16S rRNA sequence S000414520 (RDP), L22890 (Genbank). N4Lid DOI: 10.1601/nm.4582
- Genus † *Haloicola*^{VP} Zhilina et al. 1992. ≈ *Halanaerobium* (earlier heterotypic synonym), links through 10.1601/nm.4572. N4Lid 10.1601/nm.9171
- Genus *Halocella*^{VP} Simankova et al. 1994. N4Lid DOI: 10.1601/nm.4583
- Halocella cellulositytica*^{VP} corrig. Simankova et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700086. N4Lid DOI: 10.1601/nm.4584
- Genus *Halothermothrix*^{VP} Cayol et al. 1994. N4Lid DOI: 10.1601/nm.4585
- Halothermothrix orenii*^{VP} Cayol et al. 1994. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9562. High-quality 16S rRNA sequence S000414511 (RDP), L22016 (Genbank). GOLD ID: Gi01049. GCAT ID: 001788_GCAT. Entrez

genome id: 16377. Sequenced strain: DSM 9562 is type material. Genome sequencing is incomplete. Number of genomes of this species sequenced 1 (GOLD) 1 (NCBI). N4Lid DOI: 10.1601/nm.4586

Family Halobacteroidaceae^{VP} Zhilina and Rainey 1995. N4Lid DOI: 10.1601/nm.4587

Genus Halobacteroides^{VP} Oren et al. 1984. N4Lid DOI: 10.1601/nm.4588

Halobacteroides halobius^{VP} Oren et al. 1984. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35273. High-quality 16S rRNA sequence S000437483 (RDP), U32595 (Genbank). N4Lid DOI: 10.1601/nm.4589

Halobacteroides elegans^{VP} Zhilina et al. 1997. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 6639. N4Lid DOI: 10.1601/nm.4591

Genus Acetohalobium^{VP} Zhilina and Zavarzin 1990. N4Lid DOI: 10.1601/nm.4593

Acetohalobium arabaticum^{VP} Zhilina and Zavarzin 1990. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49924. High-quality 16S rRNA sequence S000012367 (RDP), X89077 (Genbank). N4Lid DOI: 10.1601/nm.4594

Genus Halanaerobacter^{VP} corrig. Liaw and Mah 1996. N4Lid DOI: 10.1601/nm.4595

Halanaerobacter chitinivorans^{VP} corrig. Liaw and Mah 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9569. High-quality 16S rRNA sequence S000437484 (RDP), U32596 (Genbank). N4Lid DOI: 10.1601/nm.4596

Halanaerobacter lacunarum^{VP} corrig. (Zhilina et al. 1992) Rainey et al. 1995. <==
Halobacteroides lacunaris (basonym). Synonym links through N4Lid: 10.1601/ex.4592. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49944. High-quality 16S rRNA sequence S000003508 (RDP), X89075 (Genbank). N4Lid DOI: 10.1601/nm.4597

† *Halobacteroides lacunaris*^{VP} Zhilina et al. 1992. ==> *Halanaerobacter lacunarum* (new combination). Synonym links through N4Lid: 10.1601/ex.4592. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 49944. High-quality 16S rRNA sequence S000003508 (RDP), X89075 (Genbank). N4Lid DOI: 10.1601/nm.4592

Halanaerobacter salinarius^{VP} Mouné et al. 1999. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700559. High-quality 16S rRNA sequence S000001988 (RDP), Y14212 (Genbank). N4Lid DOI: 10.1601/nm.4598

Genus Halonatrum^{VP} Zhilina et al. 2001. N4Lid DOI: 10.1601/nm.4599

Halonatrum saccharophilum^{VP} Zhilina et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 13868. High-quality 16S rRNA sequence S000434429 (RDP), AY014858 (Genbank). N4Lid DOI: 10.1601/nm.4600

Genus Natroniella^{VP} Zhilina et al. 1996. N4Lid DOI: 10.1601/nm.4601

Natroniella acetigena^{VP} Zhilina et al. 1996. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 9952. High-quality 16S rRNA sequence S000129988 (RDP), X95817 (Genbank). N4Lid DOI: 10.1601/nm.4602

Genus Orenia^{VP} Rainey and Stackebrandt 1995. N4Lid DOI: 10.1601/nm.4603

Orenia marismortui^{VP} (Oren et al. 1988) Rainey et al. 1995. <== *Sporohalobacter marismortui* (basonym). Synonym links through N4Lid: 10.1601/ex.4611. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35420. High-quality 16S rRNA sequence S000001987 (RDP), X89073 (Genbank). N4Lid DOI: 10.1601/nm.4604

† *Sporohalobacter marismortui*^{VP} Oren et al. 1988. ==> *Orenia marismortui* (new combination). Synonym links through N4Lid: 10.1601/ex.4611. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35420. High-quality 16S rRNA sequence S000001987 (RDP), X89073 (Genbank). N4Lid DOI: 10.1601/nm.4611

Orenia salinaria^{VP} Mouné et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 700911. High-quality 16S rRNA sequence S000414855 (RDP), Y18485 (Genbank). N4Lid DOI: 10.1601/nm.4605

Orenia sivashensis^{VP} Zhilina et al. 2000. Source of type material recommended for DOE sponsored genome sequencing by the JGI: DSM 12596. High-quality 16S rRNA sequence S000388247 (RDP), AF152595 (Genbank). N4Lid DOI: 10.1601/nm.4606

Genus Selenihalanaerobacter^{VP} Switzer Blum et al. 2001. N4Lid DOI: 10.1601/nm.4607

Selenihalanaerobacter shriftii^{VP} Switzer Blum et al. 2001. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC BAA-73. High-quality 16S rRNA sequence S000021835 (RDP), AF310247 (Genbank). N4Lid DOI: 10.1601/nm.4608

Genus *Sporohalobacter*^{VP} Oren et al. 1988. N4Lid DOI: 10.1601/nm.4609

Sporohalobacter lortetii^{VP} (Oren 1984) Oren et al. 1988. <== *Clostridium lortetii* (basonym).
Synonym links through N4Lid: 10.1601/ex.3969. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35059. High-quality 16S rRNA sequence S000436485 (RDP), M59122 (Genbank). N4Lid DOI: 10.1601/nm.4610

† *Clostridium lortetii*^{VP} Oren 1984. ==> *Sporohalobacter lortetii* (new combination). Synonym links through N4Lid: 10.1601/ex.3969. Source of type material recommended for DOE sponsored genome sequencing by the JGI: ATCC 35059. High-quality 16S rRNA sequence S000436485 (RDP), M59122 (Genbank). N4Lid DOI: 10.1601/nm.3969