

### Lista de estirpes tipo bacterianas disponíveis para distribuição no CRB-JD

Espécie	Código CRB-JD	Códigos em outras coleções	Referências
<i>Azomonas macrocytogenes</i>	BR 10692	LMG 1266 = WR 111 = ATCC 12335 = CIP 103928 = DSM 721 = NCAIM B.01790 = NCIMB 8700	NEW (P.B.) and TCHAN (Y.T.): <i>Azomonas macrocytogenes</i> (ex Baillie, Hodgkiss, and Norris 1962, 118) nom. rev. Int. J. Syst. Bacteriol., 1982, 32, 381-382.
<i>Azorhizobium caulinodans</i>	BR 5410	LMG 6465 = ORS 571 = ATCC 43989 = BCRC 15787 = DSM 5975	DREYFUS (B.), GARCIA (J.L.) and GILLIS (M.): Characterization of <i>Azorhizobium caulinodans</i> gen. nov., sp. nov., a stem-nodulating nitrogen-fixing bacterium isolated from <i>Sesbania rostrata</i> . Int. J. Syst. Bacteriol., 1988, 38, 89-98.
<i>Azorhizobium doebereinae</i>	BR 5401	LMG 9993 = SEMIA 6401 = DSM 18977	MOREIRA (F.M.S.), CRUZ (L.), FARIA (S.M.), MARSH (T.), MARTÍNEZ-ROMERO (E.), PEDROSA (F.O.), PITARD (R.M.) and YOUNG (J.P.W.): <i>Azorhizobium doebereinae</i> sp. Nov. Microsymbiont of <i>Sesbania virgata</i> (Caz.) Pers. Syst. Appl. Microbiol., 2006, 29, 197-206.
<i>Azorhizophilus paspali</i> ( <i>Azotobacter paspali</i> )	BR 10345	LMG 3864 = ATCC 23833 = CCUG 53674 = CECT 4095 = DSM 2283 = NBRC 102228	THOMPSON (J.P.) and SKERMAN (V.B.D.): <i>Azotobacteraceae</i> : the taxonomy and ecology of the aerobic nitrogen-fixing bacteria. Academic Press, London, 1980, 405 pp.
<i>Azospirillum brasilense</i>	BR 11001	Sp 7 = ATCC 29145 = DSM 1690 = BCRC 12270 = LMG 13127	TARRAND (J.J.), KRIEG (N.R.) and DÖBEREINER (J.): A taxonomic study of the <i>Spirillum lipoferum</i> group, with descriptions of a new genus, <i>Azospirillum</i> gen. nov. and two species, <i>Azospirillum lipoferum</i> (Beijerinck) comb. nov. and <i>Azospirillum brasilense</i> sp. nov. Canadian Journal of Microbiology, 1978, 24, 967-980.
<i>Azospirillum doebereinae</i>	BR 12281	GSF 71 = DSM 13131 = LMG 26176	ECKERT (B.), WEBER (O.B.), KIRCHHOF (G.), HALBRITTER (A.), STOFFELS (M.) and HARTMANN (A.): <i>Azospirillum doebereinae</i> sp. nov., a nitrogen -fixing bacterium associated with the C4 -grass <i>Miscanthus</i> . Int. J. Syst. Evol. Microbiol., 2001, 51, 17-26.
<i>Azospirillum fermentarium</i>	BR 10693	LMG 27264 = CC-LY743 = BCRC 80505 = JCM 18688	LIN, S.-Y., LIU, Y.-C., HAMEED, A., HSU, Y.-H., LAI, W.-A., SHEN, F.-T. and YOUNG, C.-C. 2013. <i>Azospirillum fermentarium</i> sp. nov., a nitrogen-fixing species isolated from a fermenter. Int. J. Syst. Evol. Microbiol., 63, 3762-3768.

<i>Azospirillum lipoferum</i>	BR 11080	Sp 59 b = ATCC 29707 = DSM 1691 = BCRC 12213 = LMG 13128	TARRAND (J.J.), KRIEG (N.R.) and DÖBEREINER (J.): A taxonomic study of the <i>Spirillum lipoferum</i> group, with descriptions of a new genus, <i>Azospirillum</i> gen. nov. and two species, <i>Azospirillum lipoferum</i> (Beijerinck) comb. nov. and <i>Azospirillum brasilense</i> sp. nov. <i>Canadian Journal of Microbiology</i> , 1978, 24, 967-980.
<i>Azospirillum melinis</i>	BR 12183	TMCY 0552 = DSM 17798 = LMG 24250	PENG (G.), WANG (H.), ZHANG (G.), HOU (W.), LIU (Y.), WANG (E.T.) and TAN (Z.): <i>Azospirillum melinis</i> sp. nov., a group of diazotrophs isolated from tropical molasses grass. <i>Int. J. Syst. Evol. Microbiol.</i> , 2006, 56, 1263-1271.
<i>Azospirillum oryzae</i>	BR 10696	LMG 23844 = COC8 = IAM 15130 = JCM 21588 = NBRC 102291	XIE (C.H.) and YOKOTA (A.): <i>Azospirillum oryzae</i> sp. nov., a nitrogen-fixing bacterium isolated from the roots of the rice plant <i>Oryza sativa</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2005, 55, 1435-1438.
<i>Azospirillum picis</i>	BR 10330	DSM 19922 = CCUG 55431	LIN (S.Y.), YOUNG (C.C.), HUPFER (H.), SIERING (C.), ARUN (A.B.), CHEN (W.M.), LAI (W.A.), SHEN (F.T.), REKHA (P.D.) and YASSIN (A.F.): <i>Azospirillum picis</i> sp. nov., isolated from discarded tar. <i>Int. J. Syst. Evol. Microbiol.</i> , 2009, 59, 761-765.
<i>Azospirillum rugosum</i>	BR 10695	DSM 19657 = IMMIB AFH-6 = CCUG 53966	YOUNG (C.C.), HUPFER (H.), SIERING (C.), HO (M.J.), ARUN (A.B.), LAI (W.A.), REKHA (P.D.), SHEN (F.T.), HUNG (M.H.), CHEN (W.M.) and YASSIN (A.F.): <i>Azospirillum rugosum</i> sp. nov., isolated from oil-contaminated soil. <i>Int. J. Syst. Evol. Microbiol.</i> , 2008, 58, 959-963.
<i>Azospirillum thiophilum</i>	BR 10331	DSM 21654 = VKM B-2513	LAVRINENKO (K.), CHERNOUSOVA (E.), GRIDNEVA (E.), DUBININA (G.), AKIMOV (V.), KUEVER (J.), LYSENKO (A.) and GRABOVICH (M.): <i>Azospirillum thiophilum</i> sp. nov., a diazotrophic bacterium isolated from a sulfide spring. <i>Int. J. Syst. Evol. Microbiol.</i> , 2010, 60, 2832-2837.
<i>Azotobacter beijerinckii</i>	BR 10657	LMG 1265 = ATCC 19360 = CIP 106282 = DSM 378 = JCM 20742 = NCAIM B.01800 = NRRL B-14367 = NRRL B-14640 = VKM B-161	LIPMAN (J.G.): Soil bacteriological studies. Report of the New Jersey Agricultural Experiment Station, 1904, 25, 237-289.
<i>Azotobacter chroococcum</i>	BR 10473	LMG 8756 = ATCC 9043 = DSM 2286 = JCM 20725 = JCM 21503 = NBRC 102613 = NCAIM B.01391 =	BEIJERINCK (M.W.): Über oligonitrophile Mikroben. <i>Zentralblatt für Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene. Abteilung II</i> , 1901, 7, 561-582.

		NRRL B-14346 = NRRL B-14637 = VKM B-1616	
<i>Azotobacter nigricans subsp. nigricans</i>	BR 10656	DSM 2288 = LMG 2816 = ATCC 35009 = UQM 1967	THOMPSON (J.P.) and SKERMAN (V.B.D.): <i>Azotobacteraceae: the taxonomy and ecology of the aerobic nitrogen-fixing bacteria.</i> Academic Press, London, 1980, 405 pp.
<i>Azotobacter vinelandii</i>	BR 10658	LMG 8758 = ATCC 478 = DSM 2289 = JCM 21475 = NBRC 102612 = NCCB 26007 = NRRL B-14641 = VKM B-1617	LIPMAN (J.G.): <i>Experiments on the transformation and fixation of nitrogen by bacteria. Report of the New Jersey Agricultural Experiment Station, 1903, 24, 217-285.</i>
<i>Beijerinckia doebereineriae</i>	BR 10344	LMG 2819 = CECT 7311 = DSM 19635	OGGERIN (M.), ARAHAL (D.R.), RUBIO (V.) and MARÍN (I.): <i>Identification of Beijerinckia fluminensis strains CIP 106281T and UQM 1685T as Rhizobium radiobacter strains, and proposal of Beijerinckia doebereineriae sp. nov. to accommodate Beijerinckia fluminensis LMG 2819. Int. J. Syst. Evol. Microbiol., 2009, 59, 2323-2328.</i>
<i>Bradyrhizobium arachidis</i>	BR 10337	LMG 26795 = CCBAU 051107 = CGMCC 1.12100 = HAMBI 3281	WANG (R.), CHANG (Y.L.), ZHENG (W.T.), ZHANG (D.), ZHANG (X.X.), SUI (X.H.), WANG (E.T.), HU (J.Q.), ZHANG (L.Y.), CHEN (W.X.). <i>Bradyrhizobium arachidis sp. nov., isolated from effective nodules of Arachis hypogaea grown in China. Syst Appl Microbiol. 2013 Mar; 36(2): 101-5.</i>
<i>Bradyrhizobium betae</i>	BR 10200	CNPSO 2079 = DSM 17288 = CECT 5829 = LMG 21987 = NBRC 103048	RIVAS (R.), WILLEMS (A.), PALOMO (J.L.), GARCÍA-BENAVIDES (P.), MATEOS (P.F.), MARTÍNEZ-MOLINA (E.), GILLIS (M.) and VELÁZQUEZ (E.): <i>Bradyrhizobium betae sp. nov., isolated from roots of Beta vulgaris affected by tumour-like deformations. Int. J. Syst. Evol. Microbiol., 2004, 54, 1271-1275.</i>

<i>Bradyrhizobium canariense</i>	BR 10180	DSM 16623 = ATCC BAA-1002 = LMG 22265	VINUESA (P.), LEÓN-BARRIOS (M.), SILVA (C.), WILLEMS (A.), JARABO-LORENZO (A.), PÉREZ-GALDONA (R.), WERNER (D.) and MARTÍNEZ-ROMERO (E.): <i>Bradyrhizobium canariense</i> sp. nov., an acid-tolerant endosymbiont that nodulates endemic genistoid legumes (Papilionoideae: Genisteae) from the Canary Islands, along with <i>Bradyrhizobium japonicum</i> bv. <i>genistearum</i> , <i>Bradyrhizobium</i> genospecies alpha and <i>Bradyrhizobium</i> genospecies beta. <i>Int. J. Syst. Evol. Microbiol.</i> , 2005, 55, 569-575.
<i>Bradyrhizobium cytisi</i>	BR 10318	LMG 25866 = CECT 7749 = CTAW11	CHAHBOUNE (R.), CARRO (L.), PEIX (A.), BARRIJAL (S.), VELÁZQUEZ (E.) and BEDMAR (E.J.): <i>Bradyrhizobium cytisi</i> sp. nov., isolated from effective nodules of <i>Cytisus villosus</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2011, 61, 2922-2927.
<i>Bradyrhizobium daqingense</i>	BR 10474	HAMBI 3184 = CCBAU 15774 = CGMCC 1.10947 = LMG 26137	WANG (J.Y.), WANG (R.), ZHANG (Y.M.), LIU (H.C.), CHEN (W.F.), WANG (E.T.), SUI (X.H.) and W. X. CHEN (W.X.): <i>Bradyrhizobium daqingense</i> sp. nov., isolated from soybean nodules. <i>Int. J. Syst. Evol. Microbiol.</i> , 2013, 63, 616-624.
<i>Bradyrhizobium denitrificans</i> ( <i>Blastobacter denitrificans</i> )	BR 10327	LMG 8443 = ATCC 43295 = DSM 1113 = HAMBI 2266	VAN BERKUM (P.), LEIBOLD (J.M.) and EARDLY (B.D.): Proposal for combining <i>Bradyrhizobium</i> spp. ( <i>Aeschynomene indica</i> ) with <i>Blastobacter denitrificans</i> and to transfer <i>Blastobacter denitrificans</i> (Hirsh and Muller, 1985) to the genus <i>Bradyrhizobium</i> as <i>Bradyrhizobium denitrificans</i> (comb. nov.). <i>Syst. Appl. Microbiol.</i> , 2006, 29, 207-215.
<i>Bradyrhizobium diazoefficiens</i>	BR 116	USDA 110 = BCRC 13528 = NBRC 14792 = SEMIA 5032 = CNPSo 46	DELAMUTA, J. R. M., RIBEIRO, R. A., ORMEÑO-ORRILLO, E., MELO, I. S., MARTÍNEZ-ROMERO, E. and HUNGRIA, M. 2013. Polyphasic evidence supporting the reclassification of <i>Bradyrhizobium japonicum</i> group Ia strains as <i>Bradyrhizobium diazoefficiens</i> sp. nov.. <i>Int. J. Syst. Evol. Microbiol.</i> , 63, 3342-3351.
<i>Bradyrhizobium elkanii</i>	BR 10357	LMG 6134 = USDA 76 = ATCC 49852 = DSM 11554 = BCRC 15790	KUYKENDALL (L.D.), SAXENA (B.), DEVINE (T.E.) and UDELL (S.E.): Genetic diversity in <i>Bradyrhizobium japonicum</i> Jordan 1982 and a proposal for <i>Bradyrhizobium elkanii</i> sp. nov. <i>Can. J. Microbiol.</i> , 1992, 38, 501-505.

<i>Bradyrhizobium embrapense</i>	BR 2212	CNPSo 2833 = CIAT 2372 = SEMIA 6208 = U674	DELAMUTA (J.R.), RIBEIRO (R.A.), ORMEÑO-ORRILLO (E.), PARMA (M.M.), MELO (I.S.), MARTÍNEZ-ROMERO (E.), HUNGRIA (M.). Bradyrhizobium tropiciagri sp. nov. and Bradyrhizobium embrapense sp. nov., nitrogen-fixing symbionts of tropical forage legumes. Int J Syst Evol Microbiol. 2015 Dec; 65(12): 4424-33.
<i>Bradyrhizobium erythrophlei</i>	BR 10486	HAMBI 3614 = CCBAU 53325 = CGMCC 1.13002 = LMG 28425	YAO, Y., SUI, X. H., ZHANG, X. X., WANG, E. T. and CHEN, W. X. 2015. Bradyrhizobium erythrophlei sp. nov. and Bradyrhizobium ferriligni sp. nov., isolated from effective nodules of Erythrophleum fordii. Int. J. Syst. Evol. Microbiol., 65, 1831-1837.
<i>Bradyrhizobium ferriligni</i>	BR 10482	HAMBI 3613 = CCBAU 51502 = CGMCC 1.13001	YAO, Y., SUI, X. H., ZHANG, X. X., WANG, E. T. and CHEN, W. X. 2015. Bradyrhizobium erythrophlei sp. nov. and Bradyrhizobium ferriligni sp. nov., isolated from effective nodules of Erythrophleum fordii. Int. J. Syst. Evol. Microbiol., 65, 1831-1837.
<i>Bradyrhizobium huanghuaihaiense</i>	BR 10336	LMG 26136 = CCBAU 23303 = HAMBI 3180	ZHANG (Y.M.), LI (Y.J.), CHEN (W.F.), WANG (E.T.), SUI (X.H.), LI (Q.Q.), ZHANG (Y.Z.), ZHOU (Y.G.) and CHEN (W.X.): Bradyrhizobium huanghuaihaiense sp. nov., an effective symbiotic bacterium isolated from soybean (Glycine max L.) nodules. Int. J. Syst. Evol. Microbiol., 2012, 62, 1951-1957.
<i>Bradyrhizobium icense</i>	BR 10399	CNPSo 2583 = LMTR 13 = HAMBI 3584	DURÁN, D., REY, L., MAYO, J., ZÚÑIGA-DÁVILA, D., IMPERIAL, J., RUIZ-ARGÄESO, T. S., MARTÍNEZ-ROMERO, E. and ORMEÑO-ORRILLO, E. 2014. Bradyrhizobium paxllaeri sp. nov. and Bradyrhizobium icense sp. nov., nitrogen-fixing rhizobial symbionts of Lima bean (Phaseolus lunatus L.) in Peru. Int. J. Syst. Evol. Microbiol., 64, 2072-2078.
<i>Bradyrhizobium ingae</i>	BR 10250	ERR 494 = HAMBI 3600	DA SILVA, K., DE MEYER, S. E., ROUWS, L. F. M., FARIAS, E. N. C., DOS SANTOS, M. A. O., O'HARA, G., ARDLEY, J. K., WILLEMS, A., PITARD, R. M. and ZILLI, J. E. 2014. Bradyrhizobium ingae sp. nov., isolated from effective nodules of Inga laurina grown in Cerrado soil. Int. J. Syst. Evol. Microbiol., 64, 3395-3401.

<i>Bradyrhizobium iriomotense</i>	BR 10354	LMG 24129 = EK05 = NBRC 102520	ISLAM (M.S.), KAWASAKI (H.), MURAMATSU (Y.), NAKAGAWA (Y.) and SEKI (T.): <i>Bradyrhizobium iriomotense</i> sp. nov., isolated from a tumor-like root of the legume <i>Entada koshunensis</i> from Iriomote Island in Japan. <i>Biosci. Biotechnol. Biochem.</i> , 2008, 72, 1416-1429.
<i>Bradyrhizobium japonicum</i>	BR 114	USDA 06 = ATCC 10324 = BCRC 13518 = DSM 30131 = HAMBI 2314 = LMG 6138 = NBRC 14783 = USDA 505	JORDAN (D.C.) Transfer of <i>Rhizobium japonicum</i> Buchanan 1980 to <i>Bradyrhizobium</i> gen. nov., a genus of slow-growing, root nodule bacteria from leguminous plants. <i>Int. J. Syst. Bacteriol.</i> , 1982, 32, 136-139.
<i>Bradyrhizobium jicamae</i>	BR 10585	LMG 24556 = PAC68 = CECT 7395	RAMÍREZ-BAHENA (M.H.), PEIX (A.), RIVAS (R.), CAMACHO (M.), RODRÍGUEZ-NAVARRO (D.N.), MATEOS (P.F.), MARTÍNEZ-MOLINA (E.), WILLEMS (A.) and VELÁZQUEZ (E.): <i>Bradyrhizobium pachyrhizi</i> sp. nov. and <i>Bradyrhizobium jicamae</i> sp. nov., isolated from effective nodules of <i>Pachyrhizus erosus</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2009, 59, 1929-1934.
<i>Bradyrhizobium liaoningense</i>	BR 10397	CNPS0 2483 = ATCC 700350 = CIP 104858 = NBRC 100396 = LMG 18230	XU (L.M.), GE (C.), CUI (Z.), LI (J.) and FAN (H.): <i>Bradyrhizobium liaoningense</i> sp. nov., isolated from the root nodules of soybeans. <i>Int. J. Syst. Bacteriol.</i> , 1995, 45, 706-711.
<i>Bradyrhizobium lupini</i>	BR 10498	LMG 28514 = USDA 3051 = CECT 8630	PEIX, A., RAMÍREZ-BAHENA, M. H., FLORES-FÉLIX, J. D., ALONSO DE LA VEGA, P., RIVAS, R., MATEOS, P. F., IGUAL, J. M., MARTÍNEZ-MOLINA, E., TRUJILLO, M. E. and VELÁZQUEZ, E. 2015. Revision of the taxonomic status of the species <i>Rhizobium lupini</i> and reclassification as <i>Bradyrhizobium lupini</i> comb. nov. <i>Int. J. Syst. Evol. Microbiol.</i> , 65, 1213-1219.
<i>Bradyrhizobium manausense</i>	BR 3351	CV1C4-31 = HAMBI 3596	SILVA, F. V., DE MEYER, S. E., SIMÕES-ARAÚJO, J. L., DA COSTA BARBÉ, T., XAVIER, G. R., O'HARA, G., ARDLEY, J. K., RUMJANEK, N. G., WILLEMS, A. and ZILLI, J. E. 2014. <i>Bradyrhizobium manausense</i> sp. nov., isolated from effective nodules of <i>Vigna unguiculata</i> grown in Brazilian Amazonian rainforest soils. <i>Int. J. Syst. Evol. Microbiol.</i> , 64, 2358-2363.

<i>Bradyrhizobium neotropicale</i>	BR 10247	ERR 435 = HAMBÍ 3599	ZILLI, J. E., BARAÚNA, A. C., DA SILVA, K., DE MEYER, S. E., FARIAS, E. N. C., KAMINSKI, P. E., DA COSTA, I. B., ARDLEY, J. K., WILLEMS, A., CAMACHO, N. N., DOURADO, F. D. S. and O'HARA, G. 2014. <i>Bradyrhizobium neotropicale</i> sp. nov., isolated from effective nodules of <i>Centrolobium paraense</i> . Int. J. Syst. Evol. Microbiol., 64, 3950-3957.
<i>Bradyrhizobium oligotrophicum</i> ( <i>Agromonas oligotrophica</i> )	BR 10343	LMG 10732 = ATCC 43045 = DSM 12412 = JCM 1494 = NCIMB 12151	RAMÍREZ-BAHENA (M.H.), CHAHBOUNE (R.), PEIX (A.) and VELÁZQUEZ (E.): Reclassification of <i>Agromonas oligotrophica</i> into the genus <i>Bradyrhizobium</i> as <i>Bradyrhizobium oligotrophicum</i> comb. nov. Int. J. Syst. Evol. Microbiol., 2013, 63, 1013-1016.
<i>Bradyrhizobium ottawaense</i>	BR 10475	HAMBÍ 3284 = OO99 = LMG 26739	YU, X., CLOUTIER, S., TAMBONG, J. T. and BROMFIELD, E. S. P. 2014. <i>Bradyrhizobium ottawaense</i> sp. nov., a symbiotic nitrogen fixing bacterium from root nodules of soybeans in Canada. Int. J. Syst. Evol. Microbiol., 64, 3202-3207.
<i>Bradyrhizobium pachyrhizi</i>	BR 10199	CNPSo 2077 = LMG 24246 = CECT 7396 = DSM 19631	RAMÍREZ-BAHENA (M.H.), PEIX (A.), RIVAS (R.), CAMACHO (M.), RODRÍGUEZ-NAVARRO (D.N.), MATEOS (P.F.), MARTÍNEZ-MOLINA (E.), WILLEMS (A.) and VELÁZQUEZ (E.): <i>Bradyrhizobium pachyrhizi</i> sp. nov. and <i>Bradyrhizobium jicamae</i> sp. nov., isolated from effective nodules of <i>Pachyrhizus erosus</i> . Int. J. Syst. Evol. Microbiol., 2009, 59, 1929-1934.
<i>Bradyrhizobium paxllaeri</i>	BR 10398	CNPSo 2582 = DSM 18454 = HAMBÍ 2911	DURÁN, D., REY, L., MAYO, J., ZÚÑIGA-DÁVILA, D., IMPERIAL, J., RUIZ-ARGÄESO, T. S., MARTÍNEZ-ROMERO, E. and ORMEÑO-ORRILLO, E. 2014. <i>Bradyrhizobium paxllaeri</i> sp. nov. and <i>Bradyrhizobium icense</i> sp. nov., nitrogen-fixing rhizobial symbionts of Lima bean ( <i>Phaseolus lunatus</i> L.) in Peru. Int. J. Syst. Evol. Microbiol., 64, 2072-2078.
<i>Bradyrhizobium rifense</i>	10368	CNPSo 2468 = LMG 26781 = CECT 8066	CHAHBOUNE, R., CARRO, L., PEIX, A., RAMÍREZ-BAHENA, M. H., BARRIJAL, S., VELÁZQUEZ, E. and BEDMAR, E. J. 2012. <i>Bradyrhizobium rifense</i> sp. nov. isolated from effective nodules of <i>Cytisus villosus</i> grown in the Moroccan Rif. Syst. Appl. Microbiol., 35, 302-305.

<i>Bradyrhizobium tropiciagri</i>	BR 1009	CNPSo 1112 = SMS 303 = SEMIA 6148 = LMG 28867	DELAMUTA (J.R.), RIBEIRO (R.A.), ORMEÑO-ORRILLO (E.), PARMA (M.M.), MELO (I.S.), MARTÍNEZ-ROMERO (E.), HUNGRIA (M.). <i>Bradyrhizobium tropiciagri</i> sp. nov. and <i>Bradyrhizobium embrapense</i> sp. nov., nitrogen-fixing symbionts of tropical forage legumes. Int J Syst Evol Microbiol. 2015 Dec; 65(12): 4424-33.
<i>Bradyrhizobium valentinum</i>	BR 10400	CNPSo 2587 = LmjM3 = LMG 27619	DURÁN (D.), REY (L.), NAVARRO (A.), BUSQUETS (A.), IMPERIAL (J.), RUIZ-ARGÜESO (T.). <i>Bradyrhizobium valentinum</i> sp. nov., isolated from effective nodules of <i>Lupinus mariae-josephae</i> , a lupine endemic of basic-lime soils in Eastern Spain. Systematic and Applied Microbiology. V. 37, Issue 5, July 2014, Pages 336–341.
<i>Bradyrhizobium viridifuturi</i>	BR 1804	SEMIA 690 = CNPSo 991 = C100a = LMG 28866	HELENE (L.C.), DELAMUTA (J.R.), RIBEIRO (R.A.), ORMEÑO-ORRILLO (E.), ROGEL (M.A.), MERTÍNEZ-ROMERO (E.), HUNGRIA (M.). <i>Bradyrhizobium viridifuturi</i> sp. nov., encompassing nitrogen-fixing symbionts of legumes used for green manure and environmental services. Int J Syst Evol Microbiol. 2015 Dec; 65(12): 4441-8.
<i>Bradyrhizobium yuanmingense</i>	BR 10201	CNPSo 2080 = LMG 21827 = NBRC 100594	YAO (Z.Y.), KAN (F.L.), WANG (E.T.), WEI (G.H.) and CHEN (W.X.): Characterization of rhizobia that nodulate legume species of the genus <i>Lespedeza</i> and description of <i>Bradyrhizobium yuanmingense</i> sp. nov. Int. J. Syst. Evol. Microbiol., 2002, 52, 2219-2230.
<i>Burkholderia gladioli</i>	BR 12320	ATCC 10248 = DSM 4285	YABUUCHI (E.), KOSAKO (Y.), OYAIZU (H.), YANO (I.), HOTTA (H.), HASHIMOTO (Y.), EZAKI (T.) and ARAKAWA (M.): Proposal of <i>Burkholderia</i> gen. nov. and transfer of seven species of the genus <i>Pseudomonas</i> homology group II to the new genus, with the type species <i>Burkholderia cepacia</i> (Palleroni and Holmes 1981) comb. nov. Microbiol. Immunol., 1992, 36, 1251-1275.
<i>Burkholderia glumae</i>	BR 12322	ATCC 33617 = DSM 7169 = DSM 9512	URAKAMI (T.), ITO-YOSHIDA (C.), ARAKI (H.), KIJIMA (T.), SUZUKI (K.I.) and KOMAGATA (K.): Transfer of <i>Pseudomonas plantarii</i> and <i>Pseudomonas glumae</i> to <i>Burkholderia</i> as <i>Burkholderia</i> spp. and description of <i>Burkholderia vandii</i> sp. nov. Int. J. Syst. Bacteriol., 1994, 44, 235-245.



<i>Burkholderia plantarii</i>	BR 12324	ATCC 43733 = LMG 9035	URAKAMI (T.), ITO-YOSHIDA (C.), ARAKI (H.), KIJIMA (T.), SUZUKI (K.I.) and KOMAGATA (K.): Transfer of <i>Pseudomonas plantarii</i> and <i>Pseudomonas glumae</i> to <i>Burkholderia</i> as <i>Burkholderia</i> spp. and description of <i>Burkholderia vandii</i> sp. nov. <i>Int. J. Syst. Bacteriol.</i> , 1994, 44, 235-245.
<i>Burkholderia pyrrocinia</i>	BR 12325	ATCC 15958 = DSM 10685	VANDAMME (P.), HOLMES (B.), VANCANNEYT (M.), COENYE (T.), HOSTE (B.), COOPMAN (R.), REVETS (H.), LAUWERS (S.), GILLIS (M.), KERSTERS (K.) and GOVAN (J.R.W.): Occurrence of multiple genomovars of <i>Burkholderia cepacia</i> in cystic fibrosis patients and proposal of <i>Burkholderia multivorans</i> sp. nov. <i>Int. J. Syst. Bacteriol.</i> , 1997, 47, 1188-1200.
<i>Burkholderia vietnamiensis</i>	BR 12311	TVV 75 = LMG 10929 = ATCC BAA-248	GILLIS (M.), VAN (T.V.), BARDIN (R.), GOOR (M.), HEBBAR (P.), WILLEMS (A.), SEGERS (P.), KERSTERS (K.), HEULIN (T.) and FERNANDEZ (M.P.): Polyphasic taxonomy in the genus <i>Burkholderia</i> leading to an emended description of the genus and proposition of <i>Burkholderia vietnamiensis</i> sp. nov. for N <sub>2</sub> -fixing isolates from rice in Vietnam. <i>Int. J. Syst. Bacteriol.</i> , 1995, 45, 274-289.
<i>Chelatococcus asaccharovorans</i>	BR 10179	DSM 6462 = ATCC 51531 = LMG 25503	AULING (G.), BUSSE (H.J.), EGLI (T.), EL-BANNA (T.) and STACKEBRANDT (E.): Description of the gram-negative, obligately aerobic, nitrilotriacetate (NTA)-utilizing bacteria as <i>Chelatobacter heintzii</i> , gen. nov., sp. nov., and <i>Chelatococcus asaccharovorans</i> , gen. nov., sp. nov. <i>Syst. Appl. Microbiol.</i> , 1993, 16, 104-112.
<i>Cupriavidus taiwanensis</i>	BR 3471	LMG 19424 = DSM 17343 = CIP 107171	VANDAMME (P.) and COENYE (T.): Taxonomy of the genus <i>Cupriavidus</i> : a tale of lost and found. <i>Int. J. Syst. Evol. Microbiol.</i> , 2004, 54, 2285-2289.
<i>Devosia neptuniae</i>	BR 10334	LMG 21357 = CECT 5650 = CIP 108397	RIVAS (R.), WILLEMS (A.), SUBBA-RAO (N.S.), MATEOS (P.F.), DAZZO (F.B.), KROPPESTEDT (R.M.), MARTÍNEZ-MOLINA (E.), GILLIS (M.) and VELÁZQUEZ (E.): Description of <i>Devosia neptuniae</i> sp. nov. that nodulates and fixes nitrogen in symbiosis with <i>Neptunia natans</i> , an aquatic legume from India. <i>Syst. Appl. Microbiol.</i> , 2003, 26, 47-53.

<i>Devosia yakushimensis</i>	BR 10316	LMG 24299 = DSM 21277 = KCTC 22147 = NBRC 103855	BAUTISTA (V.V.), MONSALUD (R.G.) and YOKOTA (A.): <i>Devosia yakushimensis</i> sp. nov., isolated from root nodules of <i>Pueraria lobata</i> (Willd.) Ohwi. <i>Int. J. Syst. Evol. Microbiol.</i> , 2010, 60, 627-632.
<i>Ensifer americanum</i>	BR 10401	CNPSo 2065 = LMG 22684 = ATCC BAA-532 = CIP 108390 = DSM 15007	WANG, Y. C., WANG, F., HOU, B. C., WANG, E. T., CHEN, W. F., SUI, X. H., CHEN, W. X., LI, Y. and ZHANG, Y. B. 2013. Proposal of <i>Ensifer psoraleae</i> sp. nov., <i>Ensifer sesbaniae</i> sp. nov., <i>Ensifer morelense</i> comb. nov. and <i>Ensifer americanum</i> comb. nov. <i>Syst. Appl. Microbiol.</i> , 36, 467-473.
<i>Ensifer fredii</i>	BR 112	LMG 6217 = USDA 205 = ATCC 35423 = DSM 5851	YOUNG (J.M.): The genus name <i>Ensifer</i> Casida 1982 takes priority over <i>Sinorhizobium</i> Chen et al. 1988, and <i>Sinorhizobium morelense</i> Wang et al. 2002 is a later synonym of <i>Ensifer adhaerens</i> Casida 1982. Is the combination ' <i>Sinorhizobium adhaerens</i> ' (Casida 1982) Willems et al. 2003 legitimate? Request for an Opinion. <i>Int. J. Syst. Evol. Microbiol.</i> , 2003, 53, 2107-2110.
<i>Ensifer medicae</i>	BR 525	USDA 1037 = BCRC 15798 = HAMBI 2306 = LMG 19920 = NBRC 100384	YOUNG (J.M.): The genus name <i>Ensifer</i> Casida 1982 takes priority over <i>Sinorhizobium</i> Chen et al. 1988, and <i>Sinorhizobium morelense</i> Wang et al. 2002 is a later synonym of <i>Ensifer adhaerens</i> Casida 1982. Is the combination ' <i>Sinorhizobium adhaerens</i> ' (Casida 1982) Willems et al. 2003 legitimate? Request for an Opinion. <i>Int. J. Syst. Evol. Microbiol.</i> , 2003, 53, 2107-2110.
<i>Ensifer meliloti</i>	BR 7411	LMG 6133 = NZP 4027 = ATCC 9930 = BCRC 13516 = DSM 30135 = HAMBI 2148	YOUNG (J.M.): The genus name <i>Ensifer</i> Casida 1982 takes priority over <i>Sinorhizobium</i> Chen et al. 1988, and <i>Sinorhizobium morelense</i> Wang et al. 2002 is a later synonym of <i>Ensifer adhaerens</i> Casida 1982. Is the combination ' <i>Sinorhizobium adhaerens</i> ' (Casida 1982) Willems et al. 2003 legitimate? Request for an Opinion. <i>Int. J. Syst. Evol. Microbiol.</i> , 2003, 53, 2107-2110.

<i>Ensifer mexicanus</i>	BR 10215	CNPSO 2067 = ATCC BAA-1312 = DSM 18446 = HAMBI 2910	LLORET (L.), ORMEÑO-ORRILLO (E.), RINCÓN (R.), MARTÍNEZ-ROMERO (J.), ROGEL-HERNÁNDEZ (M.A.) and MARTÍNEZ-ROMERO (E.): <i>Ensifer mexicanus</i> sp. nov. a new species nodulating <i>Acacia angustissima</i> (Mill.) Kuntze in Mexico. <i>Syst. Appl. Microbiol.</i> , 2007, 30, 280-290.
<i>Ensifer saheli</i>	BR 526	USDA 4893 = ATCC 51690 = BCRC 15799 = DSM 11273 = HAMBI 215 = LMG 7837 = NBRC 100386	YOUNG (J.M.): The genus name <i>Ensifer</i> Casida 1982 takes priority over <i>Sinorhizobium</i> Chen et al. 1988, and <i>Sinorhizobium morelense</i> Wang et al. 2002 is a later synonym of <i>Ensifer adhaerens</i> Casida 1982. Is the combination ' <i>Sinorhizobium adhaerens</i> ' (Casida 1982) Willems et al. 2003 legitimate? Request for an Opinion. <i>Int. J. Syst. Evol. Microbiol.</i> , 2003, 53, 2107-2110.
<i>Ensifer sojae</i>	BR 10312	LMG 25493 = CCBAU 05684 = HAMBI 3098	LI (Q.Q.), WANG (E.T.), CHANG (Y.L.), ZHANG (Y.Z.), ZHANG (Y.M.), SUI (X.H.), CHEN (W.F.) and CHEN (W.X.): <i>Ensifer sojae</i> sp. nov., isolated from root nodules of <i>Glycine max</i> grown in saline-alkaline soils. <i>Int. J. Syst. Evol. Microbiol.</i> , 2011, 61, 1981-1988.
<i>Ensifer terangae</i>	BR 527	USDA 4894 = ATCC 51692 = BCRC 15800 = DSM 11282 = HAMBI 220 = LMG 7834 = NBRC 100385	YOUNG (J.M.): The genus name <i>Ensifer</i> Casida 1982 takes priority over <i>Sinorhizobium</i> Chen et al. 1988, and <i>Sinorhizobium morelense</i> Wang et al. 2002 is a later synonym of <i>Ensifer adhaerens</i> Casida 1982. Is the combination ' <i>Sinorhizobium adhaerens</i> ' (Casida 1982) Willems et al. 2003 legitimate? Request for an Opinion. <i>Int. J. Syst. Evol. Microbiol.</i> , 2003, 53, 2107-2110.
<i>Ensifer xinjiangensis</i>	BR 10214	CNPSO 2066 = ATCC 49357 = DSM 5852	YOUNG (J.M.): The genus name <i>Ensifer</i> Casida 1982 takes priority over <i>Sinorhizobium</i> Chen et al. 1988, and <i>Sinorhizobium morelense</i> Wang et al. 2002 is a later synonym of <i>Ensifer adhaerens</i> Casida 1982. Is the combination ' <i>Sinorhizobium adhaerens</i> ' (Casida 1982) Willems et al. 2003 legitimate? Request for an Opinion. <i>Int. J. Syst. Evol. Microbiol.</i> , 2003, 53, 2107-2110.

<i>Gluconacetobacter azotocaptans</i>	BR 10328	DSM 13594 = ATCC 700988 = BCC 36449 = LMG 21311	FUENTES-RAMÍREZ (L.E.), BUSTILLOS-CRISTALES (R.), TAPIA-HERNÁNDEZ (A.), JIMÉNEZ-SALGADO (T.), WANG (E.T.), MARTÍNEZ-ROMERO (E.) and CABALLERO-MELLADO (J.): Novel nitrogen-fixing acetic acid bacteria, <i>Gluconacetobacter johannae</i> sp. nov. and <i>Gluconacetobacter azotocaptans</i> sp. nov., associated with coffee plants. <i>Int. J. Syst. Evol. Microbiol.</i> , 2001, 51, 1305-1314.
<i>Gluconacetobacter diazotrophicus</i>	BR 11281	Pal 5 = ATCC 49037 = LMG 7603 = DSM 5601 = BCRC 16088 = IBSBF 1863	YAMADA (Y.), HOSHINO (K.) and ISHIKAWA (T.): The phylogeny of acetic acid bacteria based on the partial sequences of 16S ribosomal RNA: the elevation of the subgenus <i>Gluconoacetobacter</i> to generic level. <i>Biosci. Biotech. Biochem.</i> , 1997, 61, 1244-1251.
<i>Gluconacetobacter johannae</i>	BR 10697	DSM 13595 = CFN-Cf55 = ATCC 700987 = CIP 107160	FUENTES-RAMÍREZ (L.E.), BUSTILLOS-CRISTALES (R.), TAPIA-HERNÁNDEZ (A.), JIMÉNEZ-SALGADO (T.), WANG (E.T.), MARTÍNEZ-ROMERO (E.) and CABALLERO-MELLADO (J.): Novel nitrogen-fixing acetic acid bacteria, <i>Gluconacetobacter johannae</i> sp. nov. and <i>Gluconacetobacter azotocaptans</i> sp. nov., associated with coffee plants. <i>Int. J. Syst. Evol. Microbiol.</i> , 2001, 51, 1305-1314.
<i>Gluconacetobacter liquefaciens</i>	BR 10543	LMG 1381 = ATCC 14835 = CCUG 18124 = CIP 103109 = DSM 5603 = IAM 1834 = NBRC 12388 = JCM 17840 = LMG 1382 = NCCB 76052	YAMADA (Y.), HOSHINO (K.) and ISHIKAWA (T.): The phylogeny of acetic acid bacteria based on the partial sequences of 16S ribosomal RNA: the elevation of the subgenus <i>Gluconoacetobacter</i> to generic level. <i>Biosci. Biotech. Biochem.</i> , 1997, 61, 1244-1251.
<i>Gluconacetobacter sacchari</i>	BR 10698	DSM 12717 = SRI 1794 = CIP 106693	FRANKE (I.H.), FEGAN (M.), HAYWARD (C.), LEONARD (G.), STACKEBRANDT (E.) and SLY (L.I.): Description of <i>Gluconacetobacter sacchari</i> sp. nov., a new species of acetic acid bacterium isolated from the leaf sheath of sugar cane and from the pink sugar-cane mealy bug. <i>Int. J. Syst. Bacteriol.</i> , 1999, 49, 1681-1693.

<i>Herbaspirillum autotrophicum</i>	BR 10684	LMG 4326 = ATCC 29984 = CCUG 12808 = DSM 732 = IAM 14942 = JCM 21424 = NBRC 15327 = VKM B-1394	DING (L.) and YOKOTA (A.): Proposals of <i>Curvibacter gracilis</i> gen. nov., sp. nov. and <i>Herbaspirillum putei</i> sp. nov. for bacterial strains isolated from well water and reclassification of [ <i>Pseudomonas</i> ] <i>huttiensis</i> , [ <i>Pseudomonas</i> ] <i>lanceolata</i> , [ <i>Aquaspirillum</i> ] <i>delicatum</i> and [ <i>Aquaspirillum</i> ] <i>autotrophicum</i> as <i>Herbaspirillum huttiense</i> comb. nov., <i>Curvibacter lanceolatus</i> comb. nov., <i>Curvibacter delicatus</i> comb. nov. and <i>Herbaspirillum autotrophicum</i> comb. nov. <i>Int. J. Syst. Evol. Microbiol.</i> , 2004, 54, 2223-2230.
<i>Herbaspirillum frisingense</i>	BR 11790	GSF 30 = DSM 13128 = LMG 23164	KIRCHHOF (G.), ECKERT (B.), STOFFELS (M.), BALDANI (J.I.), REIS (V.M.) and HARTMANN (A.): <i>Herbaspirillum frisingense</i> sp. nov., a new nitrogen-fixing bacterial species that occurs in C4-fibre plants. <i>Int. J. Syst. Evol. Microbiol.</i> , 2001, 51, 157-168.
<i>Herbaspirillum hiltneri</i>	BR 10685	LMG 23131 = N3 = DSM 17495	ROTHBALLER (M.), SCHMID (M.), KLEIN (I.), GATTINGER (A.), GRUNDMANN (S.) and HARTMANN (A.): <i>Herbaspirillum hiltneri</i> sp. nov., isolated from surface-sterilized wheat roots. <i>Int. J. Syst. Evol. Microbiol.</i> , 2006, 56, 1341-1348.
<i>Herbaspirillum huttiense</i>	BR 10683	LMG 2199 = ATCC 14670 = CIP 103296 = DSM 10281 = IAM 14941 = JCM 21423 = NBRC 102521	DING (L.) and YOKOTA (A.): Proposals of <i>Curvibacter gracilis</i> gen. nov., sp. nov. and <i>Herbaspirillum putei</i> sp. nov. for bacterial strains isolated from well water and reclassification of [ <i>Pseudomonas</i> ] <i>huttiensis</i> , [ <i>Pseudomonas</i> ] <i>lanceolata</i> , [ <i>Aquaspirillum</i> ] <i>delicatum</i> and [ <i>Aquaspirillum</i> ] <i>autotrophicum</i> as <i>Herbaspirillum huttiense</i> comb. nov., <i>Curvibacter lanceolatus</i> comb. nov., <i>Curvibacter delicatus</i> comb. nov. and <i>Herbaspirillum autotrophicum</i> comb. nov. <i>Int. J. Syst. Evol. Microbiol.</i> , 2004, 54, 2223-2230.
<i>Herbaspirillum lusitanum</i>	BR 10326	LMG 21710 = CCUG 48869 = CECT 5661 = CIP 108242 = DSM 17154	VALVERDE (A.), VELÁZQUEZ (E.), GUTIÉRREZ (C.), CERVANTES (E.), VENTOSA (A.) and IGUAL (J.M.): <i>Herbaspirillum lusitanum</i> sp. nov., a novel nitrogen-fixing bacterium associated with root nodules of <i>Phaseolus vulgaris</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2003, 53, 1979-1983.

<i>Herbaspirillum rubrisubalbicans</i>	BR 11192	M 4 = ATCC 19308 = DSM 9440 = DSM 11543 = BCRC 15833 = LMG 2286	BALDANI (J.I.), POT (B.), KIRCHHOF (G.), FALSEN (E.), BALDANI (V.L.D.), OLIVARES (F.L.), HOSTE (B.), KERSTERS (K.), HARTMANN (A.), GILLIS (M.) and DÖBEREINER (J.): Emended description of <i>Herbaspirillum</i> ; inclusion of [ <i>Pseudomonas</i> ] <i>rubrisubalbicans</i> , a mild plant pathogen, as <i>Herbaspirillum rubrisubalbicans</i> comb. nov.; and classification of a group of clinical isolates (EF group 1) as <i>Herbaspirillum</i> species 3. <i>Int. J. Syst. Bacteriol.</i> , 1996, 46, 802-810.
<i>Herbaspirillum seropedicae</i>	BR 11175	Z 67 = ATCC 35892 = DSM 6445 = LMG 6513	BALDANI (J.I.), BALDANI (V.L.D.), SELDIN (L.) and DÖBEREINER (J.): Characterization of <i>Herbaspirillum seropedicae</i> gen. nov., sp. nov., a root-associated nitrogen-fixing bacterium. <i>Int. J. Syst. Bacteriol.</i> , 1986, 36, 86-93.
<i>Komagataeibacter hansenii</i>	BR 10544	LMG 1527 = ATCC 35959 = BCC 6318 = CCUG 18123 = DSM 5602 = JCM 7643 = NBRC 14820 = NCIMB 8746	YAMADA (Y.), YUKPAN (P.), VU (H.T.L.), MURAMATSU (Y.), OCHAIKUL (D.), TANASAPUWAT (S.) and NAKAGAWA (Y.): Description of <i>Komagataeibacter</i> gen. nov., with proposals of new combinations (Acetobacteraceae). <i>J. Gen. Appl. Microbiol.</i> , 2012, 58, 397-404.
<i>Komagataeibacter intermedius</i>	BR 10550	LMG 18909 = TF2 = BCC 36447 = CIP 105780 = DSM 11804 = JCM 16936	YAMADA (Y.), YUKPAN (P.), VU (H.T.L.), MURAMATSU (Y.), OCHAIKUL (D.), TANASAPUWAT (S.) and NAKAGAWA (Y.): Description of <i>Komagataeibacter</i> gen. nov., with proposals of new combinations (Acetobacteraceae). <i>J. Gen. Appl. Microbiol.</i> , 2012, 58, 397-404.
<i>Komagataeibacter kakiaceti</i>	BR 10554	LMG 26206 = G5-1 = JCM 25156 = NRIC 0798	YAMADA, Y. 2014. Transfer of <i>Gluconacetobacter kakiaceti</i> , <i>Gluconacetobacter medellinensis</i> and <i>Gluconacetobacter maltaceti</i> to the genus <i>Komagataeibacter</i> as <i>Komagataeibacter kakiaceti</i> comb. nov., <i>Komagataeibacter medellinensis</i> comb. nov. and <i>Komagataeibacter maltaceti</i> comb. nov. <i>Int. J. Syst. Evol. Microbiol.</i> , 64, 1670-1672.

<i>Komagataeibacter kombuchae</i> ( <i>Gluconacetobacter kombuchae</i> )	BR 10553	LMG 23726 = RG3 = MTCC 6913	YAMADA (Y.), YUKPAN (P.), VU (H.T.L.), MURAMATSU (Y.) OCHAIKUL (D.) and NAKAGAWA (Y.): Subdivision of the genus <i>Gluconacetobacter</i> Yamada, Hoshino and Ishikawa 1998: the proposal of <i>Komagatabacter</i> gen. nov., for strains accomodated to the <i>Gluconacetobacter xylinus</i> group in the $\alpha$ -Proteobacteria. <i>Ann. Microbiol.</i> , 2012, 62, 849-859.
<i>Komagataeibacter maltaceti</i>	BR 10545	LMG 1529 = NBRC 14815 = NCIMB 8752	YAMADA, Y. 2014. Transfer of <i>Gluconacetobacter kakiaceti</i> , <i>Gluconacetobacter medellinensis</i> and <i>Gluconacetobacter maltaceti</i> to the genus <i>Komagataeibacter</i> as <i>Komagataeibacter kakiaceti</i> comb. nov., <i>Komagataeibacter medellinensis</i> comb. nov. and <i>Komagataeibacter maltaceti</i> comb. nov. <i>Int. J. Syst. Evol. Microbiol.</i> , 64, 1670-1672.
<i>Komagataeibacter medellinensis</i>	BR 10548	LMG 1693 = NBRC 3288 = Kondo 51	YAMADA, Y. 2014. Transfer of <i>Gluconacetobacter kakiaceti</i> , <i>Gluconacetobacter medellinensis</i> and <i>Gluconacetobacter maltaceti</i> to the genus <i>Komagataeibacter</i> as <i>Komagataeibacter kakiaceti</i> comb. nov., <i>Komagataeibacter medellinensis</i> comb. nov. and <i>Komagataeibacter maltaceti</i> comb. nov. <i>Int. J. Syst. Evol. Microbiol.</i> , 64, 1670-1672.
<i>Komagataeibacter nataicola</i>	BR 10546	LMG 1536 = BCC 36443 = JCM 25120 = LMG 1536 = NRIC 0616	YAMADA (Y.), YUKPAN (P.), VU (H.T.L.), MURAMATSU (Y.), OCHAIKUL (D.), TANASAPUWAT (S.) and NAKAGAWA (Y.): Description of <i>Komagataeibacter</i> gen. nov., with proposals of new combinations (Acetobacteraceae). <i>J. Gen. Appl. Microbiol.</i> , 2012, 58, 397-404.
<i>Komagataeibacter rhaeticus</i>	BR 10552	LMG 22126 = DST GL02 = BCC 36452 = DSM 16663 = JCM 17122	YAMADA (Y.), YUKPAN (P.), VU (H.T.L.), MURAMATSU (Y.), OCHAIKUL (D.), TANASAPUWAT (S.) and NAKAGAWA (Y.): Description of <i>Komagataeibacter</i> gen. nov., with proposals of new combinations (Acetobacteraceae). <i>J. Gen. Appl. Microbiol.</i> , 2012, 58, 397-404.
<i>Komagataeibacter saccharivorans</i>	BR 10547	LMG 1582 = BCC 36444 = JCM 25121 = NRIC 0614	YAMADA (Y.), YUKPAN (P.), VU (H.T.L.), MURAMATSU (Y.), OCHAIKUL (D.), TANASAPUWAT (S.) and NAKAGAWA (Y.): Description of <i>Komagataeibacter</i> gen. nov., with proposals of new combinations (Acetobacteraceae). <i>J. Gen. Appl. Microbiol.</i> , 2012, 58, 397-404.

<i>Komagataeibacter swingsii</i>	BR10551	LMG 22125 = DST GL01 = BCC 36451 = DSM 16373 = JCM 17123	YAMADA (Y.), YUKPAN (P.), VU (H.T.L.), MURAMATSU (Y.), OCHAIKUL (D.), TANASAPUWAT (S.) and NAKAGAWA (Y.): Description of <i>Komagataeibacter</i> gen. nov., with proposals of new combinations (Acetobacteraceae). <i>J. Gen. Appl. Microbiol.</i> , 2012, 58, 397-404.
<i>Mesorhizobium albiziae</i>	BR 10306	LMG 23507 = CCBAU 61158 = USDA 4964	WANG (F.Q.), WANG (E.T.), LIU (J.), CHEN (Q.), SUI (X.H.), CHEN (W.F.) and CHEN (W.X.): <i>Mesorhizobium albiziae</i> sp. nov., a novel bacterium that nodulates <i>Albizia kalkora</i> in a subtropical region of China. <i>Int. J. Syst. Evol. Microbiol.</i> , 2007, 57, 1192-1199.
<i>Mesorhizobium amorphae</i>	BR 10216	CNPSO 2068 = ACCC 19665 = LMG 18977	WANG (E.T.), VAN BERKUM (P.), SUI (X.H.), BEYENE (D.), CHEN (W.X.) and MARTÍNEZ-ROMERO (E.): Diversity of rhizobia associated with <i>Amorpha fruticosa</i> isolated from Chinese soils and description of <i>Mesorhizobium amorphae</i> sp. nov. <i>Int. J. Syst. Bacteriol.</i> , 1999, 49, 51-65.
<i>Mesorhizobium caraganae</i>	BR 10308	LMG 24397 = CCBAU 11299 = HAMBI 2990	GUAN (S.H.), CHEN (W.F.), WANG (E.T.), LU (Y.L.), YAN (X.R.), ZHANG (X.X.) and CHEN (W.X.): <i>Mesorhizobium caraganae</i> sp. nov., a novel rhizobial species nodulated with <i>Caragana</i> spp. in China. <i>Int. J. Syst. Evol. Microbiol.</i> , 2008, 58, 2646-2653.
<i>Mesorhizobium chacoense</i>	BR 10302	LMG 19008 = CECT 5336 = DSM 17287	VELÁZQUEZ (E.), IGUAL (J.M.), WILLEMS (A.), FERNÁNDEZ (M.P.), MUÑOZ (E.), MATEOS (P.F.), ABRIL (A.), TORO (N.), NORMAND (P.), CERVANTES (E.), GILLIS (M.) and MARTÍNEZ-MOLINA (E.): <i>Mesorhizobium chacoense</i> sp. nov., a novel species that nodulates <i>Prosopis alba</i> in the Chaco Arido region (Argentina). <i>Int. J. Syst. Evol. Microbiol.</i> , 2001, 51, 1011-1021.
<i>Mesorhizobium ciceri</i>	BR 521	USDA 3383 = ATCC 51585 = BCRC 15795 = DSM 11540 = HAMBI 1750 = LMG 14989	JARVIS (B.D.W.), VAN BERKUM (P.), CHEN (W.X.), NOUR (S.M.), FERNANDEZ (M.P.), CLEYET-MAREL (J.C.) and GILLIS (M.): Transfer of <i>Rhizobium loti</i> , <i>Rhizobium huakuii</i> , <i>Rhizobium ciceri</i> , <i>Rhizobium mediterraneum</i> , and <i>Rhizobium tianshanense</i> to <i>Mesorhizobium</i> gen. nov. <i>Int. J. Syst. Bacteriol.</i> , 1997, 47, 895-898.



<i>Mesorhizobium huakuii</i>	BR 524	USDA 4779 = ATCC 51122 = BCRC 15723 = DSM 6573 = HAMBI 1674 = LMG 14107	JARVIS (B.D.W.), VAN BERKUM (P.), CHEN (W.X.), NOUR (S.M.), FERNANDEZ (M.P.), CLEYET-MAREL (J.C.) and GILLIS (M.): Transfer of <i>Rhizobium loti</i> , <i>Rhizobium huakuii</i> , <i>Rhizobium ciceri</i> , <i>Rhizobium mediterraneum</i> , and <i>Rhizobium tianshanense</i> to <i>Mesorhizobium</i> gen. nov. <i>Int. J. Syst. Bacteriol.</i> , 1997, 47, 895-898.
<i>Mesorhizobium loti</i>	BR 7801	LMG 6125 = ATCC 700743 = DSM 2626 = HAMBI 1129	JARVIS (B.D.W.), VAN BERKUM (P.), CHEN (W.X.), NOUR (S.M.), FERNANDEZ (M.P.), CLEYET-MAREL (J.C.) and GILLIS (M.): Transfer of <i>Rhizobium loti</i> , <i>Rhizobium huakuii</i> , <i>Rhizobium ciceri</i> , <i>Rhizobium mediterraneum</i> , and <i>Rhizobium tianshanense</i> to <i>Mesorhizobium</i> gen. nov. <i>Int. J. Syst. Bacteriol.</i> , 1997, 47, 895-898.
<i>Mesorhizobium mediterraneum</i>	BR 522	USDA 3392 = ATCC 51670 = BCRC 15796 = DSM 11555 = HAMBI 2096 = LMG 14994 = NBRC 102497	JARVIS (B.D.W.), VAN BERKUM (P.), CHEN (W.X.), NOUR (S.M.), FERNANDEZ (M.P.), CLEYET-MAREL (J.C.) and GILLIS (M.): Transfer of <i>Rhizobium loti</i> , <i>Rhizobium huakuii</i> , <i>Rhizobium ciceri</i> , <i>Rhizobium mediterraneum</i> , and <i>Rhizobium tianshanense</i> to <i>Mesorhizobium</i> gen. nov. <i>Int. J. Syst. Bacteriol.</i> , 1997, 47, 895-898.
<i>Mesorhizobium plurifarum</i>	BR 10305	LMG 11892 = HAMBI 208 = NBRC 102498	DE LAJUDIE (P.), WILLEMS (A.), NICK (G.), MOREIRA (F.), MOLOUBA (F.), HOSTE (B.), TORCK (U.), NEYRA (M.), COLLINS (M.D.), LINDSTRÖM (K.), DREYFUS (B.) and GILLIS (M.): Characterization of tropical tree rhizobia and description of <i>Mesorhizobium plurifarum</i> sp. nov. <i>Int. J. Syst. Bacteriol.</i> , 1998, 48, 369-382.
<i>Mesorhizobium silamurunense</i>	BR 10309	LMG 24822 = CCBAU 01550 = HAMBI 3029 = DSM 29845	ZHAO (C.T.), WANG (E.T.), ZHANG (Y.M.), CHEN (W.F.), SUI (X.H.), CHEN (W.X.), LIU (H.C.) and ZHANG (X.X.): <i>Mesorhizobium silamurunense</i> sp. nov., isolated from root nodules of <i>Astragalus</i> species. <i>Int. J. Syst. Evol. Microbiol.</i> , 2012, 62, 2180-2186.

<i>Mesorhizobium tamadayense</i>	BR 10320	LMG 26736 = CECT 8040	RAMÍREZ-BAHENA (M.H.), HERNÁNDEZ (M.), PEIX (A.), VELÁZQUEZ (E.) and LEÓN-BARRIOS (M.): Mesorhizobial strains nodulating <i>Anagyris latifolia</i> and <i>Lotus berthelotii</i> in Tamadaya ravine (Tenerife, Canary Islands) are two symbiovars of the same species, <i>Mesorhizobium tamadayense</i> sp. nov. <i>Syst. Appl. Microbiol.</i> , 2012, 35, 334-341.
<i>Mesorhizobium tarimense</i>	BR 10533	LMG 24338 = CCBAU 83306 = HAMB I 2973	HAN (T.X.), HAN (L.L.), WU (L.J.), CHEN (W.F.), SUI (X.H.), GU (J.G.), WANG (E.T.) and CHEN (W.X.): <i>Mesorhizobium gobiense</i> sp. nov. and <i>Mesorhizobium tarimense</i> sp. nov., isolated from wild legumes growing in desert soils of Xinjiang, China. <i>Int. J. Syst. Evol. Microbiol.</i> , 2008, 58, 2610-2618.
<i>Mesorhizobium tianshanense</i>	BR 523	USDA 3592 = BCRC 15797 = DSM 11417 = HAMB I 1870 = LMG 15767 = NBRC 102499	JARVIS (B.D.W.), VAN BERKUM (P.), CHEN (W.X.), NOUR (S.M.), FERNANDEZ (M.P.), CLEYET-MAREL (J.C.) and GILLIS (M.): Transfer of <i>Rhizobium loti</i> , <i>Rhizobium huakuii</i> , <i>Rhizobium ciceri</i> , <i>Rhizobium mediterraneum</i> , and <i>Rhizobium tianshanense</i> to <i>Mesorhizobium</i> gen. nov. <i>Int. J. Syst. Bacteriol.</i> , 1997, 47, 895-898.
<i>Methylobacterium nodulans</i>	BR 10699	LMG 21967 = CNCM I 2342 = ORS 2060	JOURAND (P.), GIRAUD (E.), BÉNA (G.), SY (A.), WILLEMS (A.), GILLIS (M.), DREYFUS (B.) and DE LAJUDIE (P.): <i>Methylobacterium nodulans</i> sp. nov., for a group of aerobic, facultatively methylotrophic, legume root-nodule-forming and nitrogen-fixing bacteria. <i>Int. J. Syst. Evol. Microbiol.</i> , 2004, 54, 2269-2273.
<i>Microvirga lotononidis</i>	BR 10204	WSM3557 = LMG 26455 = HAMB I 3237	ARDLEY (J.K.), PARKER (M.A.), DE MEYER (S.E.), TRENGOVE (R.D.), O'HARA (G.W.), REEVE (W.G.), YATES (R.J.), DILWORTH (M.J.), WILLEMS (A.) and HOWIESON (J.G.): <i>Microvirga lupini</i> sp. nov., <i>Microvirga lotononidis</i> sp. nov. and <i>Microvirga zambiensis</i> sp. nov. are alphaproteobacterial root-nodule bacteria that specifically nodulate and fix nitrogen with geographically and taxonomically separate legume hosts. <i>Int. J. Syst. Evol. Microbiol.</i> , 2012, 62, 2579-2588.

<i>Microvirga lupini</i>	BR 10202	Lut6 = LMG 26460 = HAMBI 3236	ARDLEY (J.K.), PARKER (M.A.), DE MEYER (S.E.), TRENGOVE (R.D.), O'HARA (G.W.), REEVE (W.G.), YATES (R.J.), DILWORTH (M.J.), WILLEMS (A.) and HOWIESON (J.G.): <i>Microvirga lupini</i> sp. nov., <i>Microvirga lotononidis</i> sp. nov. and <i>Microvirga zambiensis</i> sp. nov. are alphaproteobacterial root-nodule bacteria that specifically nodulate and fix nitrogen with geographically and taxonomically separate legume hosts. <i>Int. J. Syst. Evol. Microbiol.</i> , 2012, 62, 2579-2588.
<i>Microvirga subterranea</i>	BR 10191	DSM 14364 = ATCC BAA-295	KANSO (S.) and PATEL (B.K.C.): <i>Microvirga subterranea</i> gen. nov., sp. nov., a moderate thermophile from a deep subsurface Australian thermal aquifer. <i>Int. J. Syst. Evol. Microbiol.</i> , 2003, 53, 401-406.
<i>Microvirga vignae</i>	BR 3299	7S60 = HAMBI 3457	RADL, V., SIMÕES-ARAÚJO, J. L., LEITE, J., PASSOS, S. R., MARTINS, L. M., XAVIER, G. R., RUMJANEK, N. G., BALDANI, J. I. and ZILLI, J. E. 2014. <i>Microvirga vignae</i> sp. nov., a root nodule symbiotic bacterium isolated from cowpea grown in semi-arid Brazil. <i>Int. J. Syst. Evol. Microbiol.</i> , 64, 725-730.
<i>Microvirga zambiensis</i>	BR 10203	WSM3693 = LMG 26454 = HAMBI 3238	ARDLEY (J.K.), PARKER (M.A.), DE MEYER (S.E.), TRENGOVE (R.D.), O'HARA (G.W.), REEVE (W.G.), YATES (R.J.), DILWORTH (M.J.), WILLEMS (A.) and HOWIESON (J.G.): <i>Microvirga lupini</i> sp. nov., <i>Microvirga lotononidis</i> sp. nov. and <i>Microvirga zambiensis</i> sp. nov. are alphaproteobacterial root-nodule bacteria that specifically nodulate and fix nitrogen with geographically and taxonomically separate legume hosts. <i>Int. J. Syst. Evol. Microbiol.</i> , 2012, 62, 2579-2588.
<i>Nitrospirillum amazonense</i> ( <i>Azospirillum amazonense</i> )	BR 11142	Y 1 = ATCC 35119 = DSM 2787 = BCRC 14279 = LMG 22237	LIN, S.-Y., HAMEED, A., SHEN, F.-T., LIU, Y.-C., HSU, Y.-H., SHAHINA, M., LAI, W.-A. and YOUNG, C.-C. 2014. Description of <i>Niveispirillum fermenti</i> gen. nov., sp. nov., isolated from a fermentor in Taiwan, transfer of <i>Azospirillum irakense</i> (1989) as <i>Niveispirillum irakense</i> comb. nov., and reclassification of <i>Azospirillum amazonense</i> (1983) as <i>Nitrospirillum amazonense</i> gen. nov. <i>Antonie van Leeuwenhoek</i> , 105, 1149-1162.

<i>Niveispirillum irakense</i>	BR 10694	LMG 10653 = KBC1 = ATCC 51182 = BCRC 15764 = CIP 103311	LIN, S. Y., HAMEED, A., SHEN, F. T., LIU, Y. C., HSU, Y. H., SHAHINA, M., LAI, W. A. and YOUNG, C. C. 2014. Description of <i>Niveispirillum fermenti</i> gen. nov., sp. nov., isolated from a fermentor in Taiwan, transfer of <i>Azospirillum irakense</i> (1989) as <i>Niveispirillum irakense</i> comb. nov., and reclassification of <i>Azospirillum amazonense</i> (1983) as <i>Nitrospirillum amazonense</i> gen. nov. <i>Antonie van Leeuwenhoek</i> , 105, 1149-1162.
<i>Noviherbaspirillum canariense</i> ( <i>Herbaspirillum canariense</i> )	BR 10687	LMG 26151 = SUEMI03 = CECT 7838	LIN, S.-Y., HAMEED, A., ARUN, A. B., LIU, Y.-C., HSU, Y.-H., LAI, W.-A., REKHA, P. D. and YOUNG, C.-C. 2013. Description of <i>Noviherbaspirillum malthae</i> gen. nov., sp. nov., isolated from an oil-contaminated soil, and proposal to reclassify <i>Herbaspirillum soli</i> , <i>Herbaspirillum aurantiacum</i> , <i>Herbaspirillum canariense</i> and <i>Herbaspirillum psychrotolerans</i> as <i>Noviherbaspirillum soli</i> comb. nov., <i>Noviherbaspirillum aurantiacum</i> comb. nov., <i>Noviherbaspirillum canariense</i> comb. nov. and <i>Noviherbaspirillum psychrotolerans</i> comb. nov. based on polyphasic analysis. <i>Int. J. Syst. Evol. Microbiol.</i> , 63, 4100-4107.
<i>Noviherbaspirillum soli</i> ( <i>Herbaspirillum soli</i> )	BR 10686	LMG 26149 = SUEMI10 = CECT 7840	LIN, S.-Y., HAMEED, A., ARUN, A. B., LIU, Y.-C., HSU, Y.-H., LAI, W.-A., REKHA, P. D. and YOUNG, C.-C. 2013. Description of <i>Noviherbaspirillum malthae</i> gen. nov., sp. nov., isolated from an oil-contaminated soil, and proposal to reclassify <i>Herbaspirillum soli</i> , <i>Herbaspirillum aurantiacum</i> , <i>Herbaspirillum canariense</i> and <i>Herbaspirillum psychrotolerans</i> as <i>Noviherbaspirillum soli</i> comb. nov., <i>Noviherbaspirillum aurantiacum</i> comb. nov., <i>Noviherbaspirillum canariense</i> comb. nov. and <i>Noviherbaspirillum psychrotolerans</i> comb. nov. based on polyphasic analysis. <i>Int. J. Syst. Evol. Microbiol.</i> , 63, 4100-4107.
<i>Ochrobactrum ciceri</i>	BR 10332	DSM 22292 = CCUG 57879	IMRAN (A.), HAFEEZ (F.Y.), FRÜHLING (A.), SCHUMANN (P.), MALIK (K.A.) and STACKEBRANDT (E.): <i>Ochrobactrum ciceri</i> sp. nov., isolated from nodules of <i>Cicer arietinum</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2010, 60, 1548-1553.

<i>Ochrobactrum cytisi</i>	BR 10324	LMG 22713 = CCUG 54646 = CECT 7172 = CIP 109590 = DSM 19778	ZURDO-PIÑEIRO (J.L.), RIVAS (R.), TRUJILLO (M.E.), VIZCAÍNO (N.), CARRASCO (J.A.), CHAMBER (M.), PALOMARES (A.), MATEOS (P.F.), MARTÍNEZ-MOLINA (E.) and VELÁZQUEZ (E.): <i>Ochrobactrum cytisi</i> sp. nov., isolated from nodules of <i>Cytisus scoparius</i> in Spain. <i>Int. J. Syst. Evol. Microbiol.</i> , 2007, 57, 784-788.
<i>Ochrobactrum grignonense</i>	BR 10322	LMG 18954 = BCRC 17249 = DSM 13338 = NBRC 102586	LEBUHN (M.), ACHOUAK (W.), SCHLOTTER (M.), BERGE (O.), MEIER (H.), BARAKAT (M.), HARTMANN (A.) and HEULIN (T.): Taxonomic characterization of <i>Ochrobactrum</i> sp. isolates from soil samples and wheat roots, and description of <i>Ochrobactrum tritici</i> sp. nov. and <i>Ochrobactrum grignonense</i> sp. nov. <i>Int. J. Syst. Evol. Microbiol.</i> 2000, 50, 2207-2223.
<i>Ochrobactrum lupini</i>	BR 9078	DSM 16930 = LMG 22726 = NBRC 102587	TRUJILLO (M.E.), WILLEMS (A.), ABRIL (A.), PLANCHUELO (A.M.), RIVAS (R.), LUDEÑA (D.), MATEOS (P.F.), MARTÍNEZ-MOLINA (E.) and VELÁZQUEZ (E.): Nodulation of <i>Lupinus albus</i> by strains of <i>Ochrobactrum lupini</i> sp. nov. <i>Appl. Environ. Microbiol.</i> , 2005, 71, 1318-1327.
<i>Ochrobactrum oryzae</i>	BR 10329	DSM 17471 = MTCC 4195 = NBRC 102588	TRIPATHI (A.K.), VERMA (S.C.), CHOWDHURY (S.P.), LEBUHN (M.), GATTINGER (A.) and SCHLOTTER (M.): <i>Ochrobactrum oryzae</i> sp. nov., an endophytic bacterial species isolated from deep-water rice in India. <i>Int. J. Syst. Evol. Microbiol.</i> , 2006, 56, 1677-1680.
<i>Ochrobactrum tritici</i>	BR 10323	LMG 18957 = BCRC 17250 = DSM 13340 = NBRC 102585	LEBUHN (M.), ACHOUAK (W.), SCHLOTTER (M.), BERGE (O.), MEIER (H.), BARAKAT (M.), HARTMANN (A.) and HEULIN (T.): Taxonomic characterization of <i>Ochrobactrum</i> sp. isolates from soil samples and wheat roots, and description of <i>Ochrobactrum tritici</i> sp. nov. and <i>Ochrobactrum grignonense</i> sp. nov. <i>Int. J. Syst. Evol. Microbiol.</i> 2000, 50, 2207-2223.
<i>Paraburkholderia caballeronis</i>	BR 10519	LMG 26416 = TNe-841 = CIP 110324	MARTÍNEZ-AGUILAR, L., SALAZAR-SALAZAR, C., MÉNDEZ, R. D., CABALLERO-MELLADO, J., HIRSCH, A. M., VÁSQUEZ-MURRIETA, M. S. and ESTRADA-DE LOS SANTOS, P. 2014. <i>Burkholderia caballeronis</i> sp. nov., a nitrogen fixing species isolated from tomato ( <i>Lycopersicon esculentum</i> ) with the ability to effectively nodulate <i>Phaseolus vulgaris</i> . <i>Antonie van Leeuwenhoek</i> , 104, 1063-1071.

<p><i>Paraburkholderia caledonica</i> (<i>Burkholderia caledonica</i>)</p>	<p>BR 12329</p>	<p>ATCC BAA-462 = LMG 19076</p>	<p>COENYE (T.), LAEVENS (S.), WILLEMS (A.), OHLEN (M.), HANNANT (W.), GOVAN (J.R.W.), GILLIS (M.), FALSEN (E.) and VANDAMME (P.): <i>Burkholderia fungorum</i> sp. nov. and <i>Burkholderia caledonica</i> sp. nov., two new species isolated from the environment, animals and human clinical samples. <i>Int. J. Syst. Evol. Microbiol.</i>, 2001, 51, 1099-1107. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i>: proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i>, 5, 429.</p>
<p><i>Paraburkholderia cariophylli</i> (<i>Burkholderia cariophylli</i>)</p>	<p>BR 12316</p>	<p>ATCC 25418 = DSM 50341</p>	<p>YABUUCHI (E.), KOSAKO (Y.), OYAIZU (H.), YANO (I.), HOTTA (H.), HASHIMOTO (Y.), EZAKI (T.) and ARAKAWA (M.): Proposal of <i>Burkholderia</i> gen. nov. and transfer of seven species of the genus <i>Pseudomonas</i> homology group II to the new genus, with the type species <i>Burkholderia cepacia</i> (Palleroni and Holmes 1981) comb. nov. <i>Microbiol. Immunol.</i>, 1992, 36, 1251-1275. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i>: proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i>, 5, 429.</p>

<p><i>Paraburkholderia diazotrophica</i> (<i>Burkholderia diazotrophica</i>)</p>	<p>BR 10319</p>	<p>LMG 26031 = BCRC 80259 = JPY 461 = KCTC 23308</p>	<p>SHEU (S.Y.), CHOU (J.H.), BONTEMPS (C.), ELLIOTT (G.N.), GROSS (E.), DOS REIS JUNIOR (F.B.), MELKONIAN (R.), MOULIN (L.), JAMES (E.K.), SPRENT (J.I.), YOUNG (J.P.W.) and CHEN (W.M.): Burkholderia diazotrophica sp. nov., isolated from root nodules of Mimosa spp. Int. J. Syst. Evol. Microbiol., 2013, 63, 435-441. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus Burkholderia: proposal for division of this genus into the emended genus Burkholderia containing pathogenic organisms and a new genus Paraburkholderia gen. nov. harboring environmental species. Front. Genet., 5, 429.</p>
<p><i>Paraburkholderia dilworthii</i> (<i>Burkholderia dilworthii</i>)</p>	<p>BR 10614</p>	<p>LMG 27173 = WSM3556 = HAMBI 3353</p>	<p>DE MEYER, S. E., CNOCKAERT, M., ARDLEY, J. K., VAN WYK, B.-E., VANDAMME, P. A. and HOWIESON, J. G. 2014. Burkholderia dilworthii sp. nov., isolated from Lebeckia ambigua root nodules. Int. J. Syst. Evol. Microbiol., 64, 1090-1095. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus Burkholderia: proposal for division of this genus into the emended genus Burkholderia containing pathogenic organisms and a new genus Paraburkholderia gen. nov. harboring environmental species. Front. Genet. 5, 429.</p>
<p><i>Paraburkholderia glathei</i> (<i>Burkholderia glathei</i>)</p>	<p>BR 12321</p>	<p>ATCC 29195 = DSM 50014</p>	<p>VIALARD (V.), POIRIER (I.), COURNOYER (B.), HAURAT (J.), WIEBKIN (S.), OPHEL-KELLER (K.) and BALANDREAU (J.): Burkholderia graminis sp. nov., a rhizospheric Burkholderia species, and reassessment of [Pseudomonas] phenazinium, [Pseudomonas] pyrrocinia and [Pseudomonas] glathei as Burkholderia. Int. J. Syst. Bacteriol., 1998, 48, 549-563. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus Burkholderia: proposal for division of this genus into the emended genus Burkholderia containing pathogenic organisms and a new genus Paraburkholderia gen. nov. harboring environmental species. Front. Genet., 5, 429.</p>

<p><i>Paraburkholderia graminis</i> (<i>Burkholderia graminis</i>)</p>	<p>BR 12323</p>	<p>C4D1M = ATCC 700544 = DSM 17151 = LMG 18924</p>	<p>VIALARD (V.), POIRIER (I.), COURNOYER (B.), HAURAT (J.), WIEBKIN (S.), OPHEL-KELLER (K.) and BALANDREAU (J.): <i>Burkholderia graminis</i> sp. nov., a rhizospheric <i>Burkholderia</i> species, and reassessment of [<i>Pseudomonas</i>] phenazinium, [<i>Pseudomonas</i>] pyrrocinia and [<i>Pseudomonas</i>] glathei as <i>Burkholderia</i>. <i>Int. J. Syst. Bacteriol.</i>, 1998, 48, 549-563. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i>: proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i>, 5, 429.</p>
<p><i>Paraburkholderia kururiensis</i> (<i>Burkholderia kururiensis</i>)</p>	<p>BR 11897</p>	<p>KP 23 = ATCC 700977 = DSM 13646 = LMG 19447</p>	<p>ZHANG (H.), HANADA (S.), SHIGEMATSU (T.), SHIBUYA (K.), KAMAGATA (Y.), KANAGAWA (T.) and KURANE (R.): <i>Burkholderia kururiensis</i> sp. nov., a trichloroethylene (TCE)-degrading bacterium isolated from an aquifer polluted with TCE. <i>Int. J. Syst. Evol. Microbiol.</i>, 2000, 50, 743-749. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i>: proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i>, 5, 429.</p>
<p><i>Paraburkholderia mimosarum</i> (<i>Burkholderia mimosarum</i>)</p>	<p>BR 10610</p>	<p>LMG 23256 = PAS44 = CCUG 54296</p>	<p>CHEN (W.M.), JAMES (E.K.), COENYE (T.), CHOU (J.H.), BARRIOS (E.), DE FARIA (S.M.), ELLIOTT (G.N.), SHEU (S.Y.), SPRENT (J.I.) and VANDAMME (P.): <i>Burkholderia mimosarum</i> sp. nov., isolated from root nodules of <i>Mimosa</i> spp. from Taiwan and South America. <i>Int. J. Syst. Evol. Microbiol.</i>, 2006, 56, 1847-1851. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i>: proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i>, 5, 429.</p>



<p><i>Paraburkholderia nodosa</i> (<i>Burkholderia nodosa</i>)</p>	<p>BR 3437</p>	<p>LMG 23741 = BCRC 17575</p>	<p>CHEN (W.M.), DE FARIA (S.M.), JAMES (E.K.), ELLIOTT (G.N.), LIN (K.Y.), CHOU (J.H.), SHEU (S.Y.), CNOCKAERT (M.), SPRENT (J.I.) and VANDAMME (P.): <i>Burkholderia nodosa</i> sp. nov., isolated from root nodules of the woody Brazilian legumes <i>Mimosa bimucronata</i> and <i>Mimosa scabrella</i>. <i>Int. J. Syst. Evol. Microbiol.</i>, 2007, 57, 1055-1059. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i>: proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i>, 5, 429.</p>
<p><i>Paraburkholderia phenoliruptrix</i> (<i>Burkholderia phenoliruptrix</i>)</p>	<p>BR 3459</p>	<p>AC 1100 = ATCC 39027 = ATCC 53867 = CIP 108591 = DSM 17773 = LMG 22037</p>	<p>COENYE (T.), HENRY (D.), SPEERT (D.P.) and VANDAMME (P.): <i>Burkholderia phenoliruptrix</i> sp. nov., to accommodate the 2,4,5-trichlorophenoxyacetic acid and halophenol-degrading strain AC1100. <i>Syst. Appl. Microbiol.</i>, 2004, 27, 623-627. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i>: proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i>, 5, 429.</p>
<p><i>Paraburkholderia phymatum</i> (<i>Burkholderia phymatum</i>)</p>	<p>BR 3486</p>	<p>STM 815 = DSM 17167 = LMG 21445</p>	<p>VANDAMME (P.), GORIS (J.), CHEN (W.M.), DE VOS (P.) and WILLEMS (A.): <i>Burkholderia tuberum</i> sp. nov. and <i>Burkholderia phymatum</i> sp. nov., nodulate the roots of tropical legumes. <i>Syst. Appl. Microbiol.</i>, 2002, 25, 507-512. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i>: proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i>, 5, 429.</p>

<p><i>Paraburkholderia rhynchosiae</i></p>	<p>BR 10615</p>	<p>LMG 27174 = WSM3937 = HAMBI 3354</p>	<p>DE MEYER, S. E., CNOCKAERT, M., ARDLEY, J. K., TRENGOVE, R. D., GARAU, G., HOWIESON, J. G. and VANDAMME, P. 2013. <i>Burkholderia rhynchosiae</i> sp. nov., isolated from <i>Rhynchosia ferulifolia</i> root nodules. <i>Int. J. Syst. Evol. Microbiol.</i>, 63, 3944-3949.</p>
<p><i>Paraburkholderia sabiae</i> (<i>Burkholderia sabiae</i>)</p>	<p>BR 3407</p>	<p>LMG 24235 = BCRC 17587 = SEMIA 6383</p>	<p>CHEN (W.M.), DE FARIA (S.M.), CHOU (J.H.), JAMES (E.K.), ELLIOTT (G.N.), SPRENT (J.I.), BONTEMPS (C.), YOUNG (J.P.W.) and VANDAMME (P.): <i>Burkholderia sabiae</i> sp. nov., isolated from root nodules of <i>Mimosa caesalpinifolia</i>. <i>Int. J. Syst. Evol. Microbiol.</i>, 2008, 58, 2174-2179. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i>: proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i>, 5, 429.</p>
<p><i>Paraburkholderia silvatlantica</i> (<i>Burkholderia silvatlantica</i>)</p>	<p>BR 11907</p>	<p>SRMrh 20 = ATCC BAA-1244 = LMG 23149</p>	<p>PERIN (L.), MARTÍNEZ-AGUILAR (L.), PAREDES-VALDEZ (G.), BALDANI (J.I.), ESTRADA-DE LOS SANTOS (P.), REIS (V.M.) and CABALLERO-MELLADO (J.): <i>Burkholderia silvatlantica</i> sp. nov., a diazotrophic bacterium associated with sugar cane and maize. <i>Int. J. Syst. Evol. Microbiol.</i>, 2006, 56, 1931-1937. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i>: proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i>, 5, 429.</p>

<p><i>Paraburkholderia sprengii</i> (<i>Burkholderia sprengii</i>)</p>	<p>BR 10616</p>	<p>LMG 27175 = WSM5005 = HAMBI 3357</p>	<p>DE MEYER, S. E., CNOCKAERT, M., ARDLEY, J. K., MAKER, G., YATES, R., HOWIESON, J. G. and VANDAMME, P. 2013. <i>Burkholderia sprengii</i> sp. nov., isolated from <i>Lebeckia ambigua</i> root nodules. <i>Int. J. Syst. Evol. Microbiol.</i>, 63, 3950-3957. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i>: proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i> 5, 429.</p>
<p><i>Paraburkholderia symbiotica</i> (<i>Burkholderia symbiotica</i>)</p>	<p>BR 10341</p>	<p>LMG 26032 = BCRC 80258 = JPY 345 = KCTC 23309</p>	<p>SHEU (S.Y.), CHOU (J.H.), BONTEMPS (C.), ELLIOTT (G.N.), GROSS (E.), JAMES (E.K.), SPRENT (J.I.), YOUNG (J.P.W.) and CHEN (W.M.): <i>Burkholderia symbiotica</i> sp. nov., isolated from root nodules of <i>Mimosa</i> spp. native to north-east Brazil. <i>Int. J. Syst. Evol. Microbiol.</i>, 2012, 62, 2272-2278. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i>: proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i> 5, 429.</p>
<p><i>Paraburkholderia tropica</i> (<i>Burkholderia tropica</i>)</p>	<p>BR 11366</p>	<p>Ppe 8 = ATCC BAA-831 = DSM 15359 = LMG 22274</p>	<p>REIS (V.M.), ESTRADA-DE LOS SANTOS (P.), TENORIO-SALGADO (S.), VOGEL (J.), STOFFELS (M.), GUYON (S.), MAVINGUI (P.), BALDANI (V.L.D.), SCHMID (M.), BALDANI (J.I.), BALANDREAU (J.), HARTMANN (A.) and CABALLERO-MELLADO (J.): <i>Burkholderia tropica</i> sp. nov., a novel nitrogen-fixing, plant-associated bacterium. <i>Int. J. Syst. Evol. Microbiol.</i>, 2004, 54, 2155-2162. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i>: proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i>, 5, 429.</p>

<i>Paraburkholderia tuberum</i> ( <i>Burkholderia tuberum</i> )	BR 3487	STM 678 = DSM 18489 = LMG 21444	VANDAMME (P.), GORIS (J.), CHEN (W.M.), DE VOS (P.) and WILLEMS (A.): <i>Burkholderia tuberum</i> sp. nov. and <i>Burkholderia phymatum</i> sp. nov., nodulate the roots of tropical legumes. <i>Syst. Appl. Microbiol.</i> , 2002, 25, 507-512. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i> : proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i> , 5, 429.
<i>Paraburkholderia unamae</i> ( <i>Burkholderia unamae</i> )	BR 12203	MTI 641 = ATCC BAA-744 = DSM 17197 = LMG 22722	CABALLERO-MELLADO (J.), MARTÍNEZ-AGUILAR (L.), PAREDES-VALDEZ (G.) and ESTRADA-DE LOS SANTOS (P.): <i>Burkholderia unamae</i> sp. nov., an N <sub>2</sub> -fixing rhizospheric and endophytic species. <i>Int. J. Syst. Evol. Microbiol.</i> , 2004, 54, 1165-1172. Sawana, A., Adeolu, M. and Gupta, R.S. 2014. Molecular signatures and phylogenomic analysis of the genus <i>Burkholderia</i> : proposal for division of this genus into the emended genus <i>Burkholderia</i> containing pathogenic organisms and a new genus <i>Paraburkholderia</i> gen. nov. harboring environmental species. <i>Front. Genet.</i> , 5, 429.
<i>Phyllobacterium trifolii</i>	BR 7608	DSM 17315 = LMG 22712 = CECT 7015	VALVERDE (A.), VELÁZQUEZ (E.), FERNÁNDEZ-SANTOS (F.), VIZCAÍNO (N.), RIVAS (R.), MATEOS (P.F.), MARTÍNEZ-MOLINA (E.), IGUAL (J.M.) and WILLEMS (A.): <i>Phyllobacterium trifolii</i> sp. nov., nodulating <i>Trifolium</i> and <i>Lupinus</i> in Spanish soils. <i>Int. J. Syst. Evol. Microbiol.</i> , 2005, 55, 1985-1989.
<i>Pseudomonas azotifigens</i>	BR 10340	LMG 23662 = ATCC BAA-1049 = CCUG 53885 = CIP 108866 = DSM 17556	HATAYAMA (K.), KAWAI (S.), SHOUN (H.), UEDA (Y.) and NAKAMURA (A.): <i>Pseudomonas azotifigens</i> sp. nov., a novel nitrogen-fixing bacterium isolated from a compost pile. <i>Int. J. Syst. Evol. Microbiol.</i> , 2005, 55, 1539-1544.
<i>Pseudomonas stutzeri</i>	BR 10342	LMG 10652 = A15 = R-4180	SIJDERIUS (R.): <i>Heterotrophe bacterien, die thiosulfaat oxydeeren</i> . Thesis, University Amsterdam, 1946, pp. 1-146. LEHMANN (K.B.) and NEUMANN (R.): <i>Atlas und Grundriss der Bakteriologie und Lehrbuch der speziellen bakteriologischen Diagnostik</i> , 1st ed., J.F. Lehmann, München, 1896.

<i>Rhizobium aggregatum</i>	BR 10672	DSM 1111 = Müller 161 = ATCC 43293 = IFAM 1003 = VKM B-2061	KAUR (J.), VERMA (M.) and LAL (R.): <i>Rhizobium rosettiformans</i> sp. nov., isolated from a hexachlorocyclohexane dump site, and reclassification of <i>Blastobacter aggregatus</i> Hirsch and Muller 1986 as <i>Rhizobium aggregatum</i> comb. nov. <i>Int. J. Syst. Evol. Microbiol.</i> , 2011, 61, 1218-1225.
<i>Rhizobium alamii</i>	BR 10613	LMG 24466 = GBV016 = CFBP 7146	BERGE (O.), LODHI (A.), BRANDELET (G.), SANTAELLA (C.), RONCATO (M.A.), CHRISTEN (R.), HEULIN (T.) and ACHOUAK (W.): <i>Rhizobium alamii</i> sp. nov., an exopolysaccharide-producing species isolated from legume and non-legume rhizospheres. <i>Int. J. Syst. Evol. Microbiol.</i> , 2009, 59, 367-372.
<i>Rhizobium azibense</i>	BR 10483	HAMBI 3541 = 23C2 = CCBAU 101087	MNASRI, B., LIU, T. Y., SAIDI, S., CHEN, W. F., CHEN, W. X., ZHANG, X. X. and MHAMDI, R. 2014. <i>Rhizobium azibense</i> sp. nov., a nitrogen fixing bacterium isolated from root-nodules of <i>Phaseolus vulgaris</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 64, 1501-1506.
<i>Rhizobium borbori</i>	BR 10517	LMG 23925 = DN316 = CICC 10378	ZHANG (G.X.), REN (S.Z.), XU (M.Y.), ZENG (G.Q.), LUO (H.D.), CHEN (J.L.), TAN (Z.Y.) and SUN (G.P.): <i>Rhizobium borbori</i> sp. nov., aniline-degrading bacteria isolated from activated sludge. <i>Int. J. Syst. Evol. Microbiol.</i> , 2011, 61, 816-822.
<i>Rhizobium cellulosityticum</i>	BR 10611	LMG 23642 = ALA10B2 = CECT 7176 = DSM 18291	GARCÍA-FRAILE (P.), RIVAS (R.), WILLEMS (A.), PEIX (A.), MARTENS (M.), MARTÍNEZ-MOLINA (E.), MATEOS (P.F.) and VELÁZQUEZ (E.): <i>Rhizobium cellulosityticum</i> sp. nov., isolated from sawdust of <i>Populus alba</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2007, 57, 844-848.
<i>Rhizobium daejeonense</i>	BR 10490	LMG 25353 = L61 = CCBAU 10050 = IAM 15042 = JCM 21505 = KCTC 12121 = NBRC 102495	QUAN (Z.X.), BAE (H.S.), BAEK (J.H.), CHEN (W.F.), IM (W.T.) and LEE (S.T.): <i>Rhizobium daejeonense</i> sp. nov., isolated from a cyanide treatment bioreactor. <i>Int. J. Syst. Evol. Microbiol.</i> , 2005, 55, 2543-2549.
<i>Rhizobium ecuadoreense</i>	BR 10406	CNPSO 671 = UMR 1450 = PIMAMPIRS I 5 = LMG 27578	RIBEIRO, R. A., MARTINS, T. B., ORMEÑO-ORRILLO, E., MARCON DELAMUTA, J. R., ROGEL, M. A., MARTÍNEZ-ROMERO, E. and HUNGRIA, M. 2015. <i>Rhizobium ecuadoreense</i> sp. nov., an indigenous N <sub>2</sub> -fixing symbiont of the Ecuadorian common bean ( <i>Phaseolus vulgaris</i> L.) genetic pool. <i>Int. J. Syst. Evol. Microbiol.</i> , 65, 3162-3169.

<i>Rhizobium endolithicum</i>	BR 10485	HAMBI 3447 = JC140 = CCUG 64352 = KCTC 32077 = MTCC 11723	PARAG, B., SASIKALA, CH.. and RAMANA CH., V. 2014. Molecular and culture dependent characterization of endolithic bacteria in two beach sand samples and description of <i>Rhizobium endolithicum</i> sp. nov. <i>Antonie van Leeuwenhoek</i> , 104, 1235-1244.
<i>Rhizobium endophyticum</i>	BR 10314	LMG 26002 = ATCC BAA-2116 = HAMBI 3153 = CNPSo 2060	LÓPEZ-LÓPEZ (A.), ROGEL (M.A.), ORMEÑO-ORRILLO (E.), MARTÍNEZ-ROMERO (J.) and MARTÍNEZ-ROMERO (E.): <i>Phaseolus vulgaris</i> seed-borne endophytic community with novel bacterial species such as <i>Rhizobium endophyticum</i> sp. nov. <i>Syst. Appl. Microbiol.</i> , 2010, 33, 322-327.
<i>Rhizobium etli</i>	BR 10026	CFN 42 = ATCC 51251 = BCRC 15792 = CECT 4651 = DSM 11541 = HAMBI 1727 = USDA 9032 = LMG 17827	SEGOVIA (L.), YOUNG (J.P.W.) and MARTÍNEZ-ROMERO (E.): Reclassification of American <i>Rhizobium leguminosarum</i> biovar <i>Phaseoli</i> type I strains as <i>Rhizobium etli</i> sp. nov. <i>Int. J. Syst. Bacteriol.</i> , 1993, 43, 374-377.
<i>Rhizobium fabae</i>	BR 10210	CNPSo 2059 = LMG 23997	TIAN (C.F.), WANG (E.T.), WU (L.J.), HAN (T.X.), CHEN (W.F.), GU (C.T.), GU (J.G.) and CHEN (W.X.): <i>Rhizobium fabae</i> sp. nov., a bacterium that nodulates <i>Vicia faba</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2008, 58, 2871-2875.
<i>Rhizobium freirei</i>	BR 520	PRF 81 = CNPSo 122 = SEMIA 4080 = WDCM 440	DALL'AGNOL, R. F., RIBEIRO, R. A., ORMEÑO-ORRILLO, E., ROGEL, M. A., DELAMUTA, J. R. M., ANDRADE, D. S., MARTÍNEZ-ROMERO, E. and HUNGRIA, M. 2013. <i>Rhizobium freirei</i> sp. nov., a symbiont of <i>Phaseolus vulgaris</i> that is very effective at fixing nitrogen. <i>Int. J. Syst. Evol. Microbiol.</i> , 63, 4167-4173.
<i>Rhizobium galegae</i>	BR 10055	LMG 6214 = HAMBI 540 = NZP 5563 = ATCC 43677	LINDSTRÖM (K.): <i>Rhizobium galegae</i> , a new species of legume root nodule bacteria. <i>Int. J. Syst. Bacteriol.</i> , 1989, 39, 365-367.
<i>Rhizobium grahamii</i>	BR 10404	CNPSo 2485 = CCGE 502 = ATCC BAA-2124 = CFN 242 = HAMBI 3152	LÓPEZ-LÓPEZ (A.), ROGEL-HERNÁNDEZ (M.A.), BAROIS (I.), ORTIZ CEBALLOS (A.I.), MARTÍNEZ (J.), ORMEÑO-ORRILLO (E.) and MARTÍNEZ-ROMERO (E.): <i>Rhizobium grahamii</i> sp. nov., from nodules of <i>Dalea leporina</i> , <i>Leucaena leucocephala</i> and <i>Clitoria ternatea</i> , and <i>Rhizobium mesoamericanum</i> sp. nov., from nodules of <i>Phaseolus vulgaris</i> , siratro, cowpea and <i>Mimosa pudica</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2012, 62, 2264-2271.

<i>Rhizobium halophytocola</i>	BR 10680	DSM 21600 = YC6881 = KACC 13775	BIBI (F.), CHUNG (E.J.), KHAN (A.), JEON (C.O.) and CHUNG (Y.R.): <i>Rhizobium halophytocola</i> sp. nov., isolated from the root of a coastal dune plant. Int. J. Syst. Evol. Microbiol., 2012, 62, 1997-2003.
<i>Rhizobium helanshanense</i>	BR 10487	HAMBI 3083 = ACCC 16237	QIN (W.), DENG (Z.S.), XU (L.), WANG (N.N.), WEI (G.H.). <i>Rhizobium helanshanense</i> sp. nov., a bacterium that nodulates <i>Sphaerophysa salsula</i> (Pall.) DC. in China. Arch Microbiol. 2012 May; 194(5): 371-8.
<i>Rhizobium herbae</i>	BR 10489	HAMBI 3117 = CCBAU 83011 = LMG 25718	REN (D.W.), WANG (E.T.), CHEN (W.F.), SUI (X.H.), ZHANG (X.X.), LIU (H.C.) and CHEN (W.X.): <i>Rhizobium herbae</i> sp. nov. and <i>Rhizobium giardinii</i> -related bacteria, minor microsymbionts of various wild legumes in China. Int. J. Syst. Evol. Microbiol., 2011, 61, 1912-1920.
<i>Rhizobium huautlense</i>	BR 10396	CNPSO 2062 = S02 = ATCC BAA-115 = LMG 18254	WANG (E.T.), VAN BERKUM (P.), BEYENE (D.), SUI (X.H.), DORADO (O.), CHEN (W.X.) and MARTÍNEZ-ROMERO (E.): <i>Rhizobium huautlense</i> sp. nov., a symbiont of <i>Sesbania herbacea</i> that has a close phylogenetic relationship with <i>Rhizobium galegae</i> . Int. J. Syst. Bacteriol., 1998, 48, 687-699.
<i>Rhizobium jaguaris</i>	BR 10394	CNPSO 2465 = ATCC BAA-2445 = SJP1-2	RINCÓN-ROSALES, R., VILLALOBOS-ESCOBEDO, J. M., ROGEL, M. A., MARTINEZ, J., ORMEÑO-ORRILLO, E. and MARTÍNEZ-ROMERO, E. 2013. <i>Rhizobium calliandrae</i> sp. nov., <i>Rhizobium mayense</i> sp. nov. and <i>Rhizobium jaguaris</i> sp. nov., rhizobial species nodulating the medicinal legume <i>Calliandra grandiflora</i> . Int. J. Syst. Evol. Microbiol., 63, 3423-3429.
<i>Rhizobium laguerreae</i>	BR 10521	LMG 27434 = FB206 = CECT 8280	SAIDI, S., RAMÍREZ-BAHENA, M.-H., SANTILLANA, N., ZÚÑIGA, D., ÁLVAREZ-MARTÍNEZ, E., PEIX, A., MHAMDI, R. and VELÁZQUEZ, E. 2014. <i>Rhizobium laguerreae</i> sp. nov. nodulates <i>Vicia faba</i> on several continents. Int. J. Syst. Evol. Microbiol., 64, 242-247.
<i>Rhizobium larrymoorei</i>	BR 10515	LMG 21410 = ATCC 51759 = CFBP 5473 = ICMP 14256 = NCPPB 4096	YOUNG (J.M.): Renaming of <i>Agrobacterium larrymoorei</i> Bouzar and Jones 2001 as <i>Rhizobium larrymoorei</i> (Bouzar and Jones 2001) comb. nov. Int. J. Syst. Evol. Microbiol., 2004, 54, 149.

<i>Rhizobium leguminosarum</i> ( <i>Rhizobium trifolii</i> )	BR 7606	LMG 8820 = ATCC 14480 = Means 3D1K22a = BCRC 13519 = DSM 30141	RAMÍREZ-BAHENA (M.H.), GARCÍA-FRAILE (P.), PEIX (A.), VALVERDE (A.), RIVAS (R.), IGUAL (J.M.), MATEOS (P.F.), MARTÍNEZ-MOLINA (E.) and VELÁZQUEZ (E.): Revision of the taxonomic status of the species <i>Rhizobium leguminosarum</i> (Frank 1879) Frank 1889AL, <i>Rhizobium phaseoli</i> 1926AL and <i>Rhizobium trifolii</i> Dangeard 1926AL. <i>R. trifolii</i> is a later synonym of <i>R. leguminosarum</i> . Reclassification of the strain <i>R. leguminosarum</i> DSM 30132 (=NCIMB 11478) as <i>Rhizobium pisi</i> sp. nov. <i>Int. J. Syst. Evol. Microbiol.</i> , 2008, 58, 2484-2490.
<i>Rhizobium leucaenae</i>	BR 10016	CFN 299 = CECT 4844 = CENA 183 = CNPSo 141 = JCM 21088 = LMG 9517 = ORS 651 = SEMIA 4083 = USDA 9039	RIBEIRO (R.A.), ROGEL (M.A.), LÓPEZ-LÓPEZ (A.), ORMEÑO-ORRILLO (E.), BARCELLOS (F.G.), MARTÍNEZ (J.), THOMPSON (F.L.), MARTÍNEZ-ROMERO (E.) and HUNGRIA (M.): Reclassification of <i>Rhizobium tropici</i> type A strains as <i>Rhizobium leucaenae</i> sp. nov. <i>Int. J. Syst. Evol. Microbiol.</i> , 2012, 62, 1179-1184.
<i>Rhizobium loessense</i>	BR 10516	LMG 23187 = AS1.3401 = CCBAU 7190B = CIP 108030	WEI (G.H.), TAN (Z.Y.), ZHU (M.E.), WANG (E.T.), HAN (S.Z.) and CHEN (W.X.): Characterization of rhizobia isolated from legume species within the genera <i>Astragalus</i> and <i>Lespedeza</i> grown in the Loess Plateau of China and description of <i>Rhizobium loessense</i> sp. nov. <i>Int. J. Syst. Evol. Microbiol.</i> , 2003, 53, 1575-1583.
<i>Rhizobium lusitanum</i>	BR 10207	CNPSo 2055 = LMG 22705 = CECT 7016	VALVERDE (A.), IGUAL (J.M.), PEIX (A.), CERVANTES (E.) and VELÁZQUEZ (E.): <i>Rhizobium lusitanum</i> sp. nov., a bacterium that nodulates <i>Phaseolus vulgaris</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2006, 56, 2631-2637.
<i>Rhizobium mayense</i>	BR 10367	CNPSo 2464 = ATCC BAA-2446 = NSJP1-1	RINCÓN-ROSALES, R., VILLALOBOS-ESCOBEDO, J. M., ROGEL, M. A., MARTINEZ, J., ORMEÑO-ORRILLO, E. and MARTÍNEZ-ROMERO, E. 2013. <i>Rhizobium calliandrae</i> sp. nov., <i>Rhizobium mayense</i> sp. nov. and <i>Rhizobium jaguaris</i> sp. nov., rhizobial species nodulating the medicinal legume <i>Calliandra grandiflora</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 63, 3423-3429.



<i>Rhizobium mesoamericanum</i>	BR 10402	CNPSo 2482 = CCGE 501 = ATCC BAA-2123 = CIP 110148 = HAMBI 3151	LÓPEZ-LÓPEZ (A.), ROGEL-HERNÁNDEZ (M.A.), BAROIS (I.), ORTIZ CEBALLOS (A.I.), MARTÍNEZ (J.), ORMEÑO-ORRILLO (E.) and MARTÍNEZ-ROMERO (E.): <i>Rhizobium grahamii</i> sp. nov., from nodules of <i>Dalea leporina</i> , <i>Leucaena leucocephala</i> and <i>Clitoria ternatea</i> , and <i>Rhizobium mesoamericanum</i> sp. nov., from nodules of <i>Phaseolus vulgaris</i> , siratro, cowpea and <i>Mimosa pudica</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2012, 62, 2264-2271.
<i>Rhizobium mesosinicum</i>	BR 10212	CNPSo 2063 = LMG 24135 = CCBAU 25010	LIN (D.X.), CHEN (W.F.), WANG (F.Q.), HU (D.), WANG (E.T.), SUI (X.H.) and CHEN (W.X.): <i>Rhizobium mesosinicum</i> sp. nov., isolated from root nodules of three different legumes. <i>Int. J. Syst. Evol. Microbiol.</i> , 2009, 59, 1919-1923.
<i>Rhizobium miluonense</i>	BR 10395	CNPSo 2056 = LMG 24208 = HAMBI 2971 = CCBAU 41251	GU (C.T.), WANG (E.T.), TIAN (C.F.), HAN (T.X.), CHEN (W.F.), SUI (X.H.) and CHEN (W.X.): <i>Rhizobium miluonense</i> sp. nov., a symbiotic bacterium isolated from <i>Lespedeza</i> root nodules. <i>Int. J. Syst. Evol. Microbiol.</i> , 2008, 58, 1364-1368.
<i>Rhizobium mongolense</i>	BR 10513	LMG 19140 = ATCC BAA-116 = CIP 106112 = HAMBI 2349 = USDA 1844	VAN BERKUM (P.), BEYENE (D.), BAO (G.), CAMPBELL (T.A.) and EARDLY (B.D.): <i>Rhizobium mongolense</i> sp. nov. is one of three rhizobial genotypes identified which nodulate and form nitrogen-fixing symbioses with <i>Medicago ruthenica</i> [(L.) Ledebour]. <i>Int. J. Syst. Bacteriol.</i> , 1998, 48, 13-22.
<i>Rhizobium multihospitium</i>	BR 10206	CNPSo 2054 = LMG 23946 = HAMBI 2975	HAN (T.X.), WANG (E.T.), WU (L.J.), CHEN (W.F.), GU (J.G.), GU (C.T.), TIAN (C.F.) and CHEN (W.X.): <i>Rhizobium multihospitium</i> sp. nov., isolated from multiple legume species native of Xinjiang, China. <i>Int. J. Syst. Evol. Microbiol.</i> , 2008, 58, 1693-1699.
<i>Rhizobium nepotum</i>	BR 10520	LMG 26435 = 39/7 = CFBP 7436	PUŁAWSKA (J.), WILLEMS (A.), DE MEYER (S.E.) and SÜLE (S.): <i>Rhizobium nepotum</i> sp. nov. isolated from tumors on different plant species. <i>Syst. Appl. Microbiol.</i> , 2012, 35, 215-220.

<i>Rhizobium phaseoli</i>	BR 10052	LMG 8819 = ATCC 14482 = BCRC 13520 = CECT 4115 = DSM 30137 = Means 316c15	RAMÍREZ-BAHENA (M.H.), GARCÍA-FRAILE (P.), PEIX (A.), VALVERDE (A.), RIVAS (R.), IGUAL (J.M.), MATEOS (P.F.), MARTÍNEZ-MOLINA (E.) and VELÁZQUEZ (E.): Revision of the taxonomic status of the species <i>Rhizobium leguminosarum</i> (Frank 1879) Frank 1889AL, <i>Rhizobium phaseoli</i> 1926AL and <i>Rhizobium trifolii</i> Dangeard 1926AL. <i>R. trifolii</i> is a later synonym of <i>R. leguminosarum</i> . Reclassification of the strain <i>R. leguminosarum</i> DSM 30132 (=NCIMB 11478) as <i>Rhizobium pisi</i> sp. nov. <i>Int. J. Syst. Evol. Microbiol.</i> , 2008, 58, 2484-2490.
<i>Rhizobium pisi</i> ( <i>Rhizobium leguminosarum</i> )	BR 10209	CNPSO 2058 = ATCC 10004 = LMG 14904 = DSM 30132	RAMÍREZ-BAHENA (M.H.), GARCÍA-FRAILE (P.), PEIX (A.), VALVERDE (A.), RIVAS (R.), IGUAL (J.M.), MATEOS (P.F.), MARTÍNEZ-MOLINA (E.) and VELÁZQUEZ (E.): Revision of the taxonomic status of the species <i>Rhizobium leguminosarum</i> (Frank 1879) Frank 1889AL, <i>Rhizobium phaseoli</i> 1926AL and <i>Rhizobium trifolii</i> Dangeard 1926AL. <i>R. trifolii</i> is a later synonym of <i>R. leguminosarum</i> . Reclassification of the strain <i>R. leguminosarum</i> DSM 30132 (=NCIMB 11478) as <i>Rhizobium pisi</i> sp. nov. <i>Int. J. Syst. Evol. Microbiol.</i> , 2008, 58, 2484-2490.
<i>Rhizobium pseudoryzae</i>	BR 10333	J3-A127 = KCTC 23294 = DSM 26483	ZHANG (X.), SUN (L.), MA (X.), SUI (X.H.) and JIANG (R.): <i>Rhizobium pseudoryzae</i> sp. nov., isolated from the rhizosphere of rice. <i>Int. J. Syst. Evol. Microbiol.</i> , 2011, 61, 2425-2429.
<i>Rhizobium pusense</i>	BR 10313	LMG 25623 = JCM 16209 = NCIMB 14639	PANDAY (D.), SCHUMANN (P.) and DAS (S.K.): <i>Rhizobium pusense</i> sp. nov., isolated from the rhizosphere of chickpea ( <i>Cicer arietinum</i> L.). <i>Int. J. Syst. Evol. Microbiol.</i> , 2011, 61, 2632-2639.
<i>Rhizobium rhizogenes</i>	BR 10477	HAMBI 1816 = ATCC 11325 = CIP 104328 = DSM 30148 = NBRC 13257 = CFBP 5520 = ICMP 5794 = JCM 20919 = LMG 150 = NCPPB 2991	YOUNG (J.M.), KUYKENDALL (L.D.), MARTÍNEZ-ROMERO (E.), KERR (A.) and SAWADA (H.): A revision of <i>Rhizobium</i> Frank 1889, with an emended description of the genus, and the inclusion of all species of <i>Agrobacterium</i> Conn 1942 and <i>Allorhizobium undicola</i> de Lajudie et al. 1998 as new combinations: <i>Rhizobium radiobacter</i> , <i>R. rhizogenes</i> , <i>R. rubi</i> , <i>R. undicola</i> and <i>R. vitis</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2001, 51, 89-103.

<i>Rhizobium rosettiformans</i>	BR 10682	DSM 26376 = W3 = CCM 7583 = MTCC 9454	KAUR (J.), VERMA (M.) and LAL (R.): <i>Rhizobium rosettiformans</i> sp. nov., isolated from a hexachlorocyclohexane dump site, and reclassification of <i>Blastobacter aggregatus</i> Hirsch and Muller 1986 as <i>Rhizobium aggregatum</i> comb. nov. <i>Int. J. Syst. Evol. Microbiol.</i> , 2011, 61, 1218-1225.
<i>Rhizobium rubi</i>	BR 10476	HAMBI 1812 = ATCC 13335 = CFBP 5509 = CFBP 6448 = CIP 104332 = DSM 6772 = ICMP 6428 = JCM 20918 = LMG 156 = LMG 17935 = NBRC 13261 = NCPPB 1854	YOUNG (J.M.), KUYKENDALL (L.D.), MARTÍNEZ-ROMERO (E.), KERR (A.) and SAWADA (H.): A revision of <i>Rhizobium</i> Frank 1889, with an emended description of the genus, and the inclusion of all species of <i>Agrobacterium</i> Conn 1942 and <i>Allorhizobium undicola</i> de Lajudie et al. 1998 as new combinations: <i>Rhizobium radiobacter</i> , <i>R. rhizogenes</i> , <i>R. rubi</i> , <i>R. undicola</i> and <i>R. vitis</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2001, 51, 89-103.
<i>Rhizobium selenitireducens</i>	BR 10612	LMG 24075 = B1 = ATCC BAA-1503 = NRRL B-41997	HUNTER (W.J.), KUYKENDALL (L.D.) and MANTER (D.K.): <i>Rhizobium selenitireducens</i> sp. nov.: a selenite-reducing $\alpha$ -Proteobacteria isolated from a bioreactor. <i>Curr. Microbiol.</i> , 2007, 55, 455-460.
<i>Rhizobium skierniewicense</i>	BR 10518	LMG 26191 = Ch11 = CFBP 7420	PUŁAWSKA (J.), WILLEMS (A.) and SOBICZEWSKI (P.): <i>Rhizobium skierniewicense</i> sp. nov., isolated from tumours on chrysanthemum and cherry plum. <i>Int. J. Syst. Evol. Microbiol.</i> , 2012, 62, 895-899.
<i>Rhizobium smilacinae</i>	BR 10508	LMG 27604 = PTYR-5 = CCTCC AB 2013016	ZHANG, L., SHI, X., SI, M., LI, C., ZHU, L., ZHAO, L., SHEN, X. and WANG, Y. 2014. <i>Rhizobium smilacinae</i> sp. nov., an endophytic bacterium isolated from the leaf of <i>Smilacina japonica</i> . <i>Antonie van Leeuwenhoek</i> , 106, 715-723.
<i>Rhizobium sophorae</i>	BR 10481	HAMBI 3615 = CCBAU 03386 = E5 = LMG 27901	JIAO, Y. S., YAN, H., JI, Z. J., LIU, Y. H., SUI, X. H., WANG, E. T., GUO, B. L., CHEN, W. X. and CHEN, W. F. 2015. <i>Rhizobium sophorae</i> sp. nov. and <i>Rhizobium sophoriradicis</i> sp. nov., nitrogen-fixing rhizobial symbionts of the medicinal legume <i>Sophora flavescens</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 65, 497-503.
<i>Rhizobium sophoriradicis</i>	BR 10480	HAMBI 3510 = CCBAU 03470 = C-5-1 = LMG 27898	JIAO, Y. S., YAN, H., JI, Z. J., LIU, Y. H., SUI, X. H., WANG, E. T., GUO, B. L., CHEN, W. X. and CHEN, W. F. 2015. <i>Rhizobium sophorae</i> sp. nov. and <i>Rhizobium sophoriradicis</i> sp. nov., nitrogen-fixing rhizobial symbionts of the medicinal legume <i>Sophora flavescens</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 65, 497-503.

<i>Rhizobium sphaerophysae</i>	BR 10479	HAMBI 3074 = CCNWGS0238 = ACCC17498	XU (L.), SHI (J.F.), ZHAO (P.), CHEN (W.M.), QIN (W.), TANG (M.) and WEI (G.H.): <i>Rhizobium sphaerophysae</i> sp. nov., a novel species isolated from root nodules of <i>Sphaerophysa salsula</i> in China. <i>Antonie van Leeuwenhoek</i> , 2011, 99, 845-854.
<i>Rhizobium subbaraonis</i>	BR 10681	DSM 24765 = JC85 = KCTC 23614	RAMANA (C.V.), PARAG (B.), GIRIJA (K.R.), RAM (B.R.), VENKATA RAMANA (V.) and SASIKALA (C.): <i>Rhizobium subbaraonis</i> sp. nov., an endolithic bacterium isolated from beach sand. <i>Int. J. Syst. Evol. Microbiol.</i> , 2013, 63, 581-585.
<i>Rhizobium taibaishanense</i>	BR 10472	HAMBI 3214 = CCNWSX 0483 = ACCC 14971	YAO (L.J.), SHEN (Y.Y.), ZHAN (J.P.), XU (W.), CUI (G.L.) and WEI (G.H.): <i>Rhizobium taibaishanense</i> sp. nov., isolated from a root nodule of <i>Kummerowia striata</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2012, 62, 335-341.
<i>Rhizobium tibeticum</i>	BR 10213	CNPSo 2064 = DSM 21102 = LMG 24453	HOU (B.C.), WANG (E.T.), LI Jr (Y.), JIA (R.Z.), CHEN (W.F.), GAO (Y.), DONG (R.J.) and CHEN (W.X.): <i>Rhizobium tibeticum</i> sp. nov., a symbiotic bacterium isolated from <i>Trigonella archiducis-nicolai</i> (Širj.) Vassilcz. <i>Int. J. Syst. Evol. Microbiol.</i> , 2009, 59, 3051-3057.
<i>Rhizobium tropici</i>	BR 322	CIAT 899 = SEMIA 4038 = ATCC 49672 = BCRC 15724 = DSM 11418 = HAMBI 1163 = LMG 9503	MARTÍNEZ-ROMERO (E.), SEGOVIA (L.), MERCANTE (F.M.), FRANCO (A.A.), GRAHAM (P.) and PARDO (M.A.): <i>Rhizobium tropici</i> , a novel species nodulating <i>Phaseolus vulgaris</i> L. beans and <i>Leucaena</i> sp. trees. <i>Int. J. Syst. Bacteriol.</i> , 1991, 41, 417-426.
<i>Rhizobium tubonense</i>	BR 10484	HAMBI 3066 = CCBAU 85046 = LMG 25225	ZHANG (R.J.), HOU (B.C.), WANG (E.T.), LI Jr. (Y.), ZHANG (X.X.) and CHEN (W.X.): <i>Rhizobium tubonense</i> sp. nov., isolated from root nodules of <i>Oxytropis glabra</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2011, 61, 512-517.
<i>Rhizobium undicola</i>	BR 10205	CNPSo 207 = ATCC 700741 = LMG 11875 = ORS 992	YOUNG (J.M.), KUYKENDALL (L.D.), MARTÍNEZ-ROMERO (E.), KERR (A.) and SAWADA (H.): A revision of <i>Rhizobium</i> Frank 1889, with an emended description of the genus, and the inclusion of all species of <i>Agrobacterium</i> Conn 1942 and <i>Allorhizobium undicola</i> de Lajudie et al. 1998 as new combinations: <i>Rhizobium radiobacter</i> , <i>R. rhizogenes</i> , <i>R. rubi</i> , <i>R. undicola</i> and <i>R. vitis</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2001, 51, 89-103.

<i>Rhizobium vallis</i>	BR 10310	LMG 25295 = CCBAU 65647 = HAMBI 3073 = CNPSo 2484	WANG (F.), WANG (E.T.), WU (L.J.), SUI (X.H.), LI Jr. (Y.) and CHEN (W.X.): <i>Rhizobium vallis</i> sp. nov., isolated from nodules of three leguminous species. <i>Int. J. Syst. Evol. Microbiol.</i> , 2011, 61, 2582-2588.
<i>Rhizobium vignae</i>	BR 10488	HAMBI 3039 = LMG 25447 = CCBAU 05176	REN (D.W.), CHEN (W.F.), SUI (X.H.), WANG (E.T.) and CHEN (W.X.): <i>Rhizobium vignae</i> sp. nov., a symbiotic bacterium isolated from multiple legume species. <i>Int. J. Syst. Evol. Microbiol.</i> , 2011, 61, 580-586.
<i>Rhizobium vitis</i>	BR 10478	HAMBI 1817 = K309 = ATCC 49767 = CIP 105853 = ICMP 10752 = NBRC 15140 = JCM 21033 = LMG 8750 = NCPPB 3554	YOUNG (J.M.), KUYKENDALL (L.D.), MARTÍNEZ-ROMERO (E.), KERR (A.) and SAWADA (H.): A revision of <i>Rhizobium</i> Frank 1889, with an emended description of the genus, and the inclusion of all species of <i>Agrobacterium</i> Conn 1942 and <i>Allorhizobium undicola</i> de Lajudie et al. 1998 as new combinations: <i>Rhizobium radiobacter</i> , <i>R. rhizogenes</i> , <i>R. rubi</i> , <i>R. undicola</i> and <i>R. vitis</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2001, 51, 89-103.
<i>Rhizobium yanglingense</i>	BR 10514	LMG 19592 = SH 22623 = CCBAU 71623 = CIP 108028	TAN (Z.Y.), KAN (F.L.), PENG (G.X.), WANG (E.T.), REINHOLD-HUREK (B.) and CHEN (W.X.): <i>Rhizobium yanglingense</i> sp. nov., isolated from arid and semi-arid regions in China. <i>Int. J. Syst. Evol. Microbiol.</i> , 2001, 51, 909-914.
<i>Shinella kummerowiae</i>	BR 10181	DSM 19334 = LMG 24136 = CCBAU 25048	LIN (D.X.), WANG (E.T.), TANG (H.), HAN (T.X.), HE (Y.R.), GUAN (S.H.) and CHEN (W.X.): <i>Shinella kummerowiae</i> sp. nov., a symbiotic bacterium isolated from root nodules of the herbal legume <i>Kummerowia stipulacea</i> . <i>Int. J. Syst. Evol. Microbiol.</i> , 2008, 58, 1409-1413.
<i>Sphingomonas oryzae</i>	BR 10304	DSM 21455 = KCTC 22476	CHUNG (E.J.), JO (E.J.), YOON (H.S.), SONG (G.C.), JEON (C.O.) and CHUNG (Y.R.): <i>Sphingomonas oryzae</i> sp. nov. and <i>Sphingomonas jinjuensis</i> sp. nov. isolated from rhizosphere soil of rice ( <i>Oryza sativa</i> L.). <i>Int. J. Syst. Evol. Microbiol.</i> , 2011, 61, 2389-2394.
<i>Stenotrophomonas maltophilia</i>	BR 12332	ATCC 13637 = DSM 50170 = INCQS 103	PALLERONI (N.J.) and BRADBURY (J.F.): <i>Stenotrophomonas</i> , a new bacterial genus for <i>Xanthomonas maltophilia</i> (Hugh 1980) Swings et al. 1983. <i>Int. J. Syst. Bacteriol.</i> , 1993, 43, 606-609.

<i>Stenotrophomonas pavanii</i>	BR 10317	LMG 25348 = CBMAI 564	RAMOS (P.L.), VAN TRAPPEN (S.), THOMPSON (F.L.), ROCHA (R.C.S.), BARBOSA (H.R.), DE VOS (P.) and MOREIRA-FILHO (C.A.): Screening for endophytic nitrogen-fixing bacteria in Brazilian sugar cane varieties used in organic farming and description of <i>Stenotrophomonas pavanii</i> sp. nov. Int. J. Syst. Evol. Microbiol., 2011, 61, 926-931.
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