

## Supplementary data

**Suppl. Table S1** PCR amplification and sequencing primers used in this study and their cycling conditions

Locus <sup>a</sup>	Primers <sup>b</sup>			PCR cycle conditions					
	Sequences (5' - 3')	References (primers sequences and PCR conditions)	Approximate product size (bp)	Cycles	Step 1	Step 2	Step 3	Step 4	Step 5
<b>16S rRNA</b>	16SF: AGAGTTTGATCCTGGCTCAG	Suau et al. 1999	1450	30	94°C/	94°C/	55°C/	72°C/	72°C/
	16SR: TACCTGTTACGACTTCACCCCA				2 min	1 min	1 min	1 min	1 min
<i>acnA</i>	ACNA462F: CGAGCGCTAICAGTTCAT	Mavima et al. 2021	850	30	95°C/	94°C/	43°C/	72°C/	72°C/
	ACNA1334R: GGGTTCGACGTGTTIGTG				2 min	30 s	30 s	1 min	5 min
<i>pab</i>	PAB27F: ITCGTTACCTACAACCT	Mavima et al. 2021	500	30	95°C/	94°C/	46-47°C/	72°C/	72°C/
	PAB550R: AGTTTTCIAGCAGCGIGT				2 min	30 s	30 s	1 min	5 min
<i>rpoB</i>	RpoB1394F:	Steenkamp et al. 2015	1000	40	94°C/	94°C/	65°C/	72°C/	72°C/
	TGGCGGAAAACCAGTTCCGCG								
	RpoB2430R:				15 min	10 s	20 s	50 s	5 min
<i>gltB</i>	AGCCGTTCCACGGCATGAACG								
	gltBF: CTGCATCATGATGCGCAAGTG	Spilker et al. 2009	650	30	95°C/	94°C/	58°C/	72°C/	72°C/
gltBR: CTTGCCGCGGAARTCGTTGG	2 min				30 s	30 s	1 min	5 min	

<sup>a</sup> Housekeeping loci included: *gltB*: glutamate synthase large subunit; *rpoB*: RNA polymerase subunit beta; *acnA*: aconitate hydratase A and *pab*: anthranilate synthase (para-amino-benzoate).

<sup>b</sup> The same primers were used for both PCR amplification and sequencing.

**Suppl. Table S2** Accession numbers for the DNA sequences used in this study

Isolates in the 5-gene MLSA phylogeny	<i>pab</i>	<i>gltB</i>	<i>rpoB</i>	<i>acnA</i>	*16S rRNA
<b>Cluster A (<i>Paraburkholderia tuberum</i>)</b>					
*31.1	GCA_014397645.1 <sup>o</sup>	GCA_014397645.1 <sup>o</sup>	GCA_014397645.1 <sup>o</sup>	GCA_014397645.1 <sup>o</sup>	GCA_014397645.1 <sup>o</sup>
32	LR694316	LR694347	LR694409	LR694135	LN890715
35.1	LR694317	LR694348	LR694410	LR694136	LN890716
40	LR694318	LR694349	LR694411	LR694137	LN890713
CI2	LR694319	LR694350	LR694412	LR694138	AY178069
CI3	LR694320	LR694351	LR694413	LR694139	AY178072
Clong3	LR694321	LR694352	LR694414	LR694140	AY178070
Cpub6	LR694322	LR694353	LR694415	LR694141	AY178071
HC1.1bd	LR694323	LR694354	LR694416	LR694142	LR694439
HC6.4b	LR694324	LR694355	LR694417	LR694143	HF674718
Kb1A	LR694325	LR694356	LR694418	LR694144	HF674701
MM5384	LR694326	LR694357	LR694419	LR694145	KF791651
MM5477-R1	LR694327	LR694358	LR694420	LR694146	KF791604
MM5477-R3	LR694328	LR694359	LR694421	LR694147	KF791606
MM5482-R1	LR694329	LR694360	LR694422	LR694148	KF791602
MM5482-R2	LR694330	LR694361	LR694423	LR694149	KF791603
MM5496-R1	LR694331	LR694362	LR694424	LR694150	KF791607
MM6662-R1	LR694332	LR694363	LR694425	LR694151	KF824732
RAU6.4a	LR694333	LR694364	LR694426	LR694152	HF674669
*UCT2	GCA_014397665.1 <sup>o</sup>	GCA_014397665.1 <sup>o</sup>	GCA_014397665.1 <sup>o</sup>	GCA_014397665.1 <sup>o</sup>	GCA_014397665.1 <sup>o</sup>
*UCT31	GCA_014397655.1 <sup>o</sup>	GCA_014397655.1 <sup>o</sup>	GCA_014397655.1 <sup>o</sup>	GCA_014397655.1 <sup>o</sup>	GCA_014397655.1 <sup>o</sup>
UCT70	LR694336	LR694367	LR694429	LR694155	AY178075
WSM4174	LR694337	LR694368	LR694430	LR694156	HQ698904
WSM4175	LR694338	LR694369	LR694431	LR694157	HE962574
*WSM4176	GCA_000372945.1 <sup>o</sup>	GCA_000372945.1 <sup>o</sup>	GCA_000372945.1 <sup>o</sup>	GCA_000372945.1 <sup>o</sup>	GCA_000372945.1 <sup>o</sup>
WSM4177	LR694340	LR694371	LR694433	LR694159	HE862275
WSM4179	LR694341	LR694372	LR694434	LR694160	HQ698905
WSM4180	LR694342	LR694373	LR694435	LR694161	HE862274
<b>Cluster B (<i>Paraburkholderia podalyriae</i> sp. nov.)</b>					
*WC7.3b <sup>T</sup>	GCA_014397785.1 <sup>o</sup>	GCA_014397785.1 <sup>o</sup>	GCA_014397785.1 <sup>o</sup>	GCA_014397785.1 <sup>o</sup>	GCA_014397785.1 <sup>o</sup>
WC7.3d	LR694344	LR694375	LR694437	LR694163	HF674698
WC7.3g	LR694345	LR694376	LR694438	LR694164	HF674700
<b>Reference strains and outgroups</b>					
* <i>P. tuberum</i> STM678 <sup>T</sup>	Gp0007985 <sup>o, α</sup>	Gp0007985 <sup>o, α</sup>	Gp0007985 <sup>o, α</sup>	Gp0007985 <sup>o, α</sup>	Gp0007985 <sup>o, α</sup>
* <i>P. youngii</i> JPY169 <sup>T</sup>	GCA_013366925.1 <sup>o</sup>	GCA_013366925.1 <sup>o</sup>	GCA_013366925.1 <sup>o</sup>	GCA_013366925.1 <sup>o</sup>	GCA_013366925.1 <sup>o</sup>
* <i>P. atlantica</i> CNPSo 3155 <sup>T</sup>	GCA_009362785.1 <sup>o</sup>	GCA_009362785.1 <sup>o</sup>	GCA_009362785.1 <sup>o</sup>	GCA_009362785.1 <sup>o</sup>	GCA_009362785.1 <sup>o</sup>
* <i>P. atlantica</i>	GCA_000372985.1 <sup>o</sup>	GCA_000372985.1 <sup>o</sup>	GCA_000372985.1 <sup>o</sup>	GCA_000372985.1 <sup>o</sup>	GCA_000372985.1 <sup>o</sup>

JPY251					985.1 <sup>o</sup>
* <i>P. atlantica</i> CCGE1002	GCA_000092885.1 <sup>o</sup>	GCA_000092885.1 <sup>o</sup>	GCA_000092885.1 <sup>o</sup>	GCA_000092885.1 <sup>o</sup>	GCA_000092885.1 <sup>o</sup>
* <i>Paraburkholderia</i> sp. H 160	GCA_000173575.1 <sup>o</sup>	GCA_000173575.1 <sup>o</sup>	GCA_000173575.1 <sup>o</sup>	GCA_000173575.1 <sup>o</sup>	GCA_000173575.1 <sup>o</sup>
* <i>P. kururiensis</i> JCM 10599 <sup>T</sup>	GCA_000616025.1 <sup>o</sup>	GCA_000616025.1 <sup>o</sup>	GCA_000616025.1 <sup>o</sup>	GCA_000616025.1 <sup>o</sup>	GCA_000616025.1 <sup>o</sup>
* <i>P. caballeronis</i> LMG 26416 <sup>T</sup>	GCA_900109675.1 <sup>o</sup>	GCA_900109675.1 <sup>o</sup>	GCA_900109675.1 <sup>o</sup>	GCA_900109675.1 <sup>o</sup>	GCA_900109675.1 <sup>o</sup>
* <i>P. mimosarum</i> LMG 23256 <sup>T</sup>	GCA_000472825.1 <sup>o</sup>	GCA_000472825.1 <sup>o</sup>	GCA_000472825.1 <sup>o</sup>	GCA_000472825.1 <sup>o</sup>	GCA_000472825.1 <sup>o</sup>
* <i>P. ribeironis</i> STM 7296 <sup>T</sup>	GCA_900019265.2 <sup>o</sup>	GCA_900019265.2 <sup>o</sup>	GCA_900019265.2 <sup>o</sup>	GCA_900019265.2 <sup>o</sup>	GCA_900019265.2 <sup>o</sup>
* <i>P. ginsengisoli</i> NBRC 100965 <sup>T</sup>	GCA_000739735.1 <sup>o</sup>	GCA_000739735.1 <sup>o</sup>	GCA_000739735.1 <sup>o</sup>	GCA_000739735.1 <sup>o</sup>	GCA_000739735.1 <sup>o</sup>
* <i>P. susongensis</i> LMG 29540 <sup>T</sup>	GCA_900177725.1 <sup>o</sup>	GCA_900177725.1 <sup>o</sup>	GCA_900177725.1 <sup>o</sup>	GCA_900177725.1 <sup>o</sup>	GCA_900177725.1 <sup>o</sup>
* <i>P. sprentiae</i> WSM 5005 <sup>T</sup>	GCA_001865575.1 <sup>o</sup>	GCA_001865575.1 <sup>o</sup>	GCA_001865575.1 <sup>o</sup>	GCA_001865575.1 <sup>o</sup>	GCA_001865575.1 <sup>o</sup>
* <i>P. monticola</i> JC 2948 <sup>T</sup>	GCA_001580545.1 <sup>o</sup>	GCA_001580545.1 <sup>o</sup>	GCA_001580545.1 <sup>o</sup>	GCA_001580545.1 <sup>o</sup>	GCA_001580545.1 <sup>o</sup>
* <i>Caballeronia</i> <i>calidae</i> LMG 29321 <sup>T</sup>	GCA_900044055.2 <sup>o</sup>	GCA_900044055.2 <sup>o</sup>	GCA_900044055.2 <sup>o</sup>	GCA_900044055.2 <sup>o</sup>	GCA_900044055.2 <sup>o</sup>

Isolates in the symbiotic gene phylogenies	<i>nodA</i>	<i>nifH</i>	Reference
<b><i>Paraburkholderia tuberum</i></b>			
*31.1	GCA_014397645.1 <sup>o</sup>	GCA_014397645.1 <sup>o</sup>	This study
*UCT2	GCA_014397665.1 <sup>o</sup>	GCA_014397665.1 <sup>o</sup>	This study
*UCT31	GCA_014397655.1 <sup>o</sup>	GCA_014397655.1 <sup>o</sup>	This study
*WSM4176	GCA_000372945.1 <sup>o</sup>	GCA_000372945.1 <sup>o</sup>	[De Meyer et al., 2018]
<b><i>Paraburkholderia podalyriae</i> sp. nov.</b>			
*WC7.3b <sup>T</sup>	GCA_014397785.1 <sup>o</sup>	GCA_014397785.1 <sup>o</sup>	This study
<b>Reference strains and outgroups</b>			
* <i>P. tuberum</i> STM678 <sup>T</sup>	Gp0007985 <sup>o, a</sup>	Gp0007985 <sup>o, a</sup>	[Vandamme et al., 2002]
<i>P. dilworthii</i> WSM3556	GCF_000472525.1 <sup>o</sup>	GCF_000472525.1 <sup>o</sup>	[De Meyer et al., 2014]
<i>P. caribensis</i> TJ182	GCF_003028645 <sup>o</sup>	GCF_003028645 <sup>o</sup>	[Sawana et al., 2014]
<i>P. phymatum</i> LMG 21445 <sup>T</sup>	GCF_902833665.1 <sup>o</sup>	GCF_902833665.1 <sup>o</sup>	[Vandamme et al., 2002]
<i>P. mimosarum</i> LMG 23256 <sup>T</sup>	GCF_000472825.1 <sup>o</sup>	GCF_000472825.1 <sup>o</sup>	[Chen et al., 2006]
<i>P. sprentiae</i> WSM5005 <sup>T</sup>	GCA_001865575.1 <sup>o</sup>	GCA_001865575.1 <sup>o</sup>	[De Meyer et al., 2013a]
<i>P. sabiae</i> LMG 24235 <sup>T</sup>	GCF_904848645.1 <sup>o</sup>	GCF_904848645.1 <sup>o</sup>	[Chen et al., 2008]
<i>P. nodosa</i> DSM 21604 <sup>T</sup>	GCF_000519185.1 <sup>o</sup>	GCF_000519185.1 <sup>o</sup>	[Chen et al., 2007]
<i>P. phenoliruptrix</i> BR3459a	GCF_000300095.1 <sup>o</sup>	GCF_000300095.1 <sup>o</sup>	[Sawana et al., 2014]
<i>P. kirstenboschensis</i> KB15 <sup>T</sup>	GCF_001636975.1 <sup>o</sup>	GCF_001636975.1 <sup>o</sup>	[Steenkamp et al., 2015]
<i>P. rhynchosiae</i> LMG 27174 <sup>T</sup>	GCF_902859775.1 <sup>o</sup>	GCF_902859775.1 <sup>o</sup>	[De Meyer et al., 2013b]
<i>P. dipogonis</i> ICMP 19430 <sup>T</sup>	GCA_004353905.1 <sup>o</sup>	GCA_004353905.1 <sup>o</sup>	[Sheu et al., 2015]
<i>P. piptadeniae</i> STM 7183 <sup>T</sup>	GCF_900007165.1 <sup>o</sup>	GCF_900007165.1 <sup>o</sup>	[Bournaud et al., 2017]
<i>P. ribeironis</i> STM 7296 <sup>T</sup>	GCF_900019265.1 <sup>o</sup>	GCF_900019265.1 <sup>o</sup>	[Bournaud et al., 2017]
<i>P. diazotrophica</i> LMG 26031 <sup>T</sup>	GCF_900108945.1 <sup>o</sup>	GCF_900108945.1 <sup>o</sup>	[Sheu et al., 2013]
<i>P. strydomiana</i> WK1.1f <sup>T</sup>	GCF_004334935.1 <sup>o</sup>	GCF_004334935.1 <sup>o</sup>	[Beukes et al., 2019b]
<i>P. steynii</i> HC1.1ba <sup>T</sup>	GCF_004334975.1 <sup>o</sup>	GCF_004334975.1 <sup>o</sup>	[Beukes et al., 2019b]
<i>P. quartelaensis</i> CNPSo 3008 <sup>T</sup>	GCA_004353905.1 <sup>o</sup>	GCA_004353905.1 <sup>o</sup>	[Paulitsch et al., 2019]
<i>P. franconis</i> CNPSo 3157 <sup>T</sup>	GCA_009362735.1 <sup>o</sup>	GCA_009362735.1 <sup>o</sup>	[Paulitsch et al., 2020]

<i>P. atlantica</i> CNPSo 3155 <sup>T</sup>	GCA_009362785.1 <sup>⊖</sup>	GCA_009362785.1 <sup>⊖</sup>	[Paulitsch et al., 2020]
<i>P. atlantica</i> CCGE1002	GCA_000092885.1 <sup>⊖</sup>	GCA_000092885.1 <sup>⊖</sup>	[Ormeño-Orrillo et al., 2012]
<i>P. atlantica</i> JPY303	GCA_013367625.1 <sup>⊖</sup>	GCA_013367625.1 <sup>⊖</sup>	[Mavima et al., 2021]
<i>P. atlantica</i> JPY251	GCA_000372985.1 <sup>⊖</sup>	GCA_000372985.1 <sup>⊖</sup>	[Bontemps et al., 2010; Mavima et al. 2021]
<i>P. youngii</i> JPY169 <sup>T</sup>	GCA_013366925.1 <sup>⊖</sup>	GCA_013366925.1 <sup>⊖</sup>	[Mavima et al., 2021]
<i>P. youngii</i> JPY418	GCA_013367595.1 <sup>⊖</sup>	GCA_013367595.1 <sup>⊖</sup>	[Mavima et al., 2021]
<i>P. youngii</i> JPY454	GCA_013372005.1 <sup>⊖</sup>	GCA_013372005.1 <sup>⊖</sup>	[Mavima et al., 2021]
<i>P. youngii</i> JPY432	GCA_013371975.1 <sup>⊖</sup>	GCA_013371975.1 <sup>⊖</sup>	[Mavima et al., 2021]
<i>P. podalyriae</i> sp. nov. WC7.3b <sup>T</sup>	GCA_014397785.1 <sup>⊖</sup>	GCA_014397785.1 <sup>⊖</sup>	This study
<i>Methylobacterium nodulans</i> ORS2060 <sup>T</sup>	GCF_000022085 <sup>⊖</sup>	GCF_000022085 <sup>⊖</sup>	[Jourand et al., 2004]
<i>Cupriavidus taiwanensis</i> LMG19424 <sup>T</sup>	GCF_000069785 <sup>⊖</sup>	GCF_000069785 <sup>⊖</sup>	[Vandamme and Coenye, 2004]
<i>Trinickia symbiotica</i> JPY345 <sup>T</sup>	GCA_002934455 <sup>⊖</sup>	GCA_002934455 <sup>⊖</sup>	[Estrada-de los Santos et al., 2018]
<i>Bradyrhizobium japonicum</i> USDA6 <sup>T</sup>	GCF_00284375 <sup>⊖</sup>	GCF_00284375 <sup>⊖</sup>	[Jordan, 1982]
<i>Rhizobium etli</i> CFN42 <sup>T</sup>	GCF_000092045 <sup>⊖</sup>	GCF_000092045 <sup>⊖</sup>	[Segovia et al., 1993]
<i>Methylobacterium</i> sp. 4-46	GCA_000019365 <sup>⊖</sup>	GCA_000019365 <sup>⊖</sup>	[Marx et al., 2012]
<i>Bradyrhizobium elkanii</i> USDA76 <sup>T</sup>	GCF_000379145 <sup>⊖</sup>	GCF_000379145 <sup>⊖</sup>	[Kuykendall et al., 1992]
<i>Bradyrhizobium shewense</i> ER11 <sup>T</sup>	GCA_900094605 <sup>⊖</sup>	GCA_900094605 <sup>⊖</sup>	[Aserse et al., 2017]
<i>P. atlantica</i> JPY681	GCA_014200955 <sup>⊖</sup>	GCA_014200955 <sup>⊖</sup>	[Bontemps et al., 2016; Mavima et al., 2021]
<i>Microvirga lotononidis</i> WSM3557 <sup>T</sup>	GCA_000262405.1 <sup>⊖</sup>	GCA_000262405.1 <sup>⊖</sup>	[Ardley et al., 2012]
<i>Microvirga zambiensis</i> WSM3693 <sup>T</sup>	GCA_016735695.1 <sup>⊖</sup>	GCA_016735695.1 <sup>⊖</sup>	[Ardley et al., 2012]
<i>Sinorhizobium medicae</i> WSM419	GCF_000017145 <sup>⊖</sup>	GCF_000017145 <sup>⊖</sup>	[Rome et al., 1996]
<i>Rhizobium leguminosarum</i> bv. viciae 3841	GCF_0000099265 <sup>⊖</sup>	GCF_0000099265 <sup>⊖</sup>	[Hördt et al., 2020]
<i>Paraburkholderia</i> sp. STM6020	FN908416.1	FN908427.1	[Mishra et al., 2012]
<i>Paraburkholderia</i> sp. STM3638	FN908420.1	FN908431.1	[Mishra et al., 2012]
<i>Paraburkholderia</i> sp. STM3649	FN908415.1	FN908425.1	[Mishra et al., 2012]
<i>Paraburkholderia</i> sp. STM4801	FR823308.1	FR823309.1	[Mishra et al., 2012]
<i>Paraburkholderia</i> sp. JPY807	KP760614.1	KP760500.1	[Bontemps et al., 2016]
<i>Paraburkholderia</i> sp. JPY804	KP760613.1	KP760494.1	[Bontemps et al., 2016]
<i>Paraburkholderia</i> sp. JPY697	KP760605.1	KP760493.1	[Bontemps et al., 2016]
<i>Paraburkholderia</i> sp. 690	KP760604.1	KP760490.1	[Bontemps et al., 2016]
<i>Paraburkholderia</i> sp. JPY682	KP760603.1	KP760488.1	[Bontemps et al., 2016]
<i>P. fungorum</i> Ap116	LC107583.1	LC107522.1	[Ramírez et al., 2019]
<i>P. xenovorans</i> LB400 <sup>T</sup>		GCF_000756045 <sup>⊖</sup>	[Sawana et al., 2014]
<i>P. tropica</i> LMG 22274 <sup>T</sup>		GCF_002071575 <sup>⊖</sup>	[Sawana et al., 2014]
<i>P. ferrariae</i> NBRC106233 <sup>T</sup>		GCF_000685035 <sup>⊖</sup>	[Sawana et al., 2014]
<i>P. unamae</i> CATux-332		GCF_003268775.1 <sup>⊖</sup>	[Sawana et al., 2014]
<i>P. silvatlantica</i> SRMrh-85		GCF_014191065.1 <sup>⊖</sup>	[Sawana et al., 2014]
<i>P. heleia</i> NBRC101817 <sup>T</sup>		GCF_000739775 <sup>⊖</sup>	[Sawana et al., 2014]
<i>P. kururiensis</i> LMG19447 <sup>T</sup>		GCA_902833705.1 <sup>⊖</sup>	[Zhang et al., 2000; Sawana et al., 2014]
<i>P. caballeronis</i> LMG26416 <sup>T</sup>		GCF_900109675 <sup>⊖</sup>	[Martínez-Aguilar et al., 2013]
<i>Burkholderia vietnamiensis</i> LMG10929 <sup>T</sup>		GCF_000959445 <sup>⊖</sup>	[Gillis et al., 1995]
<i>Trinickia caryophylli</i> Ballard 720		GCF_900177465 <sup>⊖</sup>	[Estrada-de los Santos et al., 2018]
<i>Herbaspirillum seropedicae</i> SmR1		GCF_000143225.1 <sup>⊖</sup>	[Baldani et al., 1986]
<i>Azoarcus olearius</i> BH72		GCF_000061505 <sup>⊖</sup>	[Chen et al., 2013]
<i>Azospirillum brasilense</i> Sp245		GCF_000237365 <sup>⊖</sup>	[Hördt et al., 2020]

Isolates in the <i>recA</i> phylogeny	<i>recA</i>	Host	Reference
<i>Paraburkholderia</i> sp. BL9-ind1-R1	KM188258.1	<i>Podalyria calyptrata</i>	[Lemaire et al., 2016b]

<i>Paraburkholderia</i> sp. BL9-ind2-R1	KM188259.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL9-ind2-R2	KM188260.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL10-ind2-R1	KM188261.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL10-ind3-R1	KM188262.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL10-ind3-R2	KM188263.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL11-ind1-R2	KM188264.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL11-ind2-R1	KM188265.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL11-ind3-R1	KM188266.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL11-ind3-R2	KM188267.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL11-ind5-R2	KM188268.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL13-R2	KM188270.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL13-R3	KM188271.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL15-R1	KM188272.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL15-R2	KM188273.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL15-R3	KM188274.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL16 ind2-R3	KM188277.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL16 ind4-R2	KM188279.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL16-ind1-R2	KM188275.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL16-ind1-R3	KM188276.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL16-ind3	KM188278.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL17-R1	KM188280.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL18-ind8-R5	KM188290.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL18-ind- R1	KM188281.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL18-ind1-R2	KM188282.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL18-ind3-R2	KM188283.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL18-ind4-R2	KM188284.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL18-ind4-R3	KM188285.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL18-ind8-R1	KM188286.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL18-ind8-R2	KM188287.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL18-ind8-R4	KM188289.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL21-ind2-R1	KM188291.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL21-ind2-R2	KM188292.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL21-ind4-R1	KM188293.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL21-ind4-R2	KM188294.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL21-ind4-R3	KM188295.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL21-ind5-R2	KM188296.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL21-ind5-R3	KM188297.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL23-ind1-R1	KM188298.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL23-ind2 R2	KM188299.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL23-ind2-R3	KM188300.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL25-ind1-R1	KM188301.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL25-ind1-R2	KM188302.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL25-ind1-R3	KM188303.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL25-ind1-R4	KM188304.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL25-ind1-R5	KM188305.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL25-ind3-R1	KM188306.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL25-ind3-R6	KM188307.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL25-ind5-R1	KM188308.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL27-ind3-R1	KM188309.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL27-ind3-R2	KM188310.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]

<i>Paraburkholderia</i> sp. BL27-ind3-R4	KM188311.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL27-ind3-R5	KM188312.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL27-ind3-R6	KM188313.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL27-ind3-R7	KM188314.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL27-ind4-R1	KM188315.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL27-ind4-R2	KM188316.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL27-ind4-R3	KM188317.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL29-ind5-R2	KM188318.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL29-ind6-R1	KM188319.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BL29-ind6-R2	KM188320.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. MM6665B-R1	KM188321.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. MM6665B-R3	KM188322.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. MM6665C-I1-R1	KM188323.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. MM6665C-I2-R1	KM188324.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. MM6665C-I2-R2	KM188325.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. MM6665C-I2-R3	KM188326.1	<i>P. calyptrata</i>	[Lemaire et al., 2016b]
<i>Paraburkholderia</i> sp. BR 4305	MN010782.1	<i>Calliandra macrocalyx</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 4306	MN010783.1	<i>C. macrocalyx</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 4308	MN010784.1	<i>C. macrocalyx</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 4309	MN010785.1	<i>C. macrocalyx</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 4311	MN010786.1	<i>C. parviflora</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 10587	MN010768.1	<i>C. macrocalyx</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 10594	MN010769.1	<i>C. sessilis</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 10605	MN010770.1	<i>C. parviflora</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 10625	MN010771.1	<i>C. calycina</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 10626	MN010772.1	<i>C. calycina</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 12422	MN010773.1	<i>C. macrocalyx</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 12434	MN010774.1	<i>C. sessilis</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 12436	MN010775.1	<i>C. brevipes</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 12438	MN010776.1	<i>C. parviflora</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 12441	MN010777.1	<i>C. magdalenae</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 12468	MN010778.1	<i>C. erubescens</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 13551	MN010779.1	<i>C. magdalenae</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 13586	MN010780.1	<i>C. erubescens</i>	[Zilli et al., 2021]
<i>Paraburkholderia</i> sp. BR 13587	MN010781.1	<i>C. sessilis</i>	[Zilli et al., 2021]
<i>P. tuberum</i> STM678 <sup>T</sup>	Gp0007985 <sup>o, a</sup>		[Vandamme et al., 2002]
<i>P. tuberum</i> WSM4176	GCA_000372945.1 <sup>o</sup>		This study
<i>P. tuberum</i> UCT2	GCA_014397665.1 <sup>o</sup>		This study
<i>P. tuberum</i> UCT31	GCA_014397655.1 <sup>o</sup>		This study
<i>P. tuberum</i> 31.1	GCA_014397645.1 <sup>o</sup>		This study
<i>P. podalyriae</i> sp. nov. WC7.3b <sup>T</sup>	GCA_014397785.1 <sup>o</sup>		This study
<i>P. sprentiae</i> WSM5005 <sup>T</sup>	GCA_001865575.1 <sup>o</sup>		[De Meyer et al., 2013a]
<i>P. youngii</i> JPY169 <sup>T</sup>	GCA_013366925.1 <sup>o</sup>		[Mavima et al., 2021]
<i>P. atlantica</i> CNPSo 3155 <sup>T</sup>	GCA_009362785.1 <sup>o</sup>		[Paulitsch et al., 2020]
<i>Paraburkholderia</i> sp. H 160	GCA_000173575.1 <sup>o</sup>		[Weber et al., 2017]
<i>P. kururiensis</i> JCM 10599 <sup>T</sup>	GCA_000616025.1 <sup>o</sup>		[Sawana et al., 2014]
<i>P. caballeronis</i> LMG 26416 <sup>T</sup>	GCA_900109675.1 <sup>o</sup>		[Martínez-Aguilar et al., 2013]
<i>P. mimosarum</i> LMG 23256 <sup>T</sup>	GCA_000472825.1 <sup>o</sup>		[Chen et al., 2006]
<i>P. ribeironis</i> STM 7296 <sup>T</sup>	GCA_900019265.2 <sup>o</sup>		[Bournaud et al., 2017]

<i>P. ginsengisoli</i> NBRC 100965 <sup>T</sup>	GCA_000739735.1 <sup>Ⓔ</sup>	[Kim et al., 2006]
<i>P. susongensis</i> LMG 29540 <sup>T</sup>	GCA_900177725.1 <sup>Ⓔ</sup>	[Gu et al., 2015]
<i>P. monticola</i> JC 2948 <sup>T</sup>	GCA_001580545.1 <sup>Ⓔ</sup>	[Baek et al., 2015]
<i>Caballeronia calidae</i> LMG 29321 <sup>T</sup>	GCA_900044055.2 <sup>Ⓔ</sup>	[Dobritsa et al., 2016, 2017]

\* Strains with whole genome sequences which were either downloaded from GenBank or obtained directly from our collaborators for this study.

<sup>Ⓔ</sup> Genome sequences from which the relevant genes were extracted.

<sup>Ⓐ</sup> Gold Project ID.

**Suppl. Table S3** Phenotypic characteristics of members of *P. podalyriae* sp. nov. and *P. tuberum* tested in this study

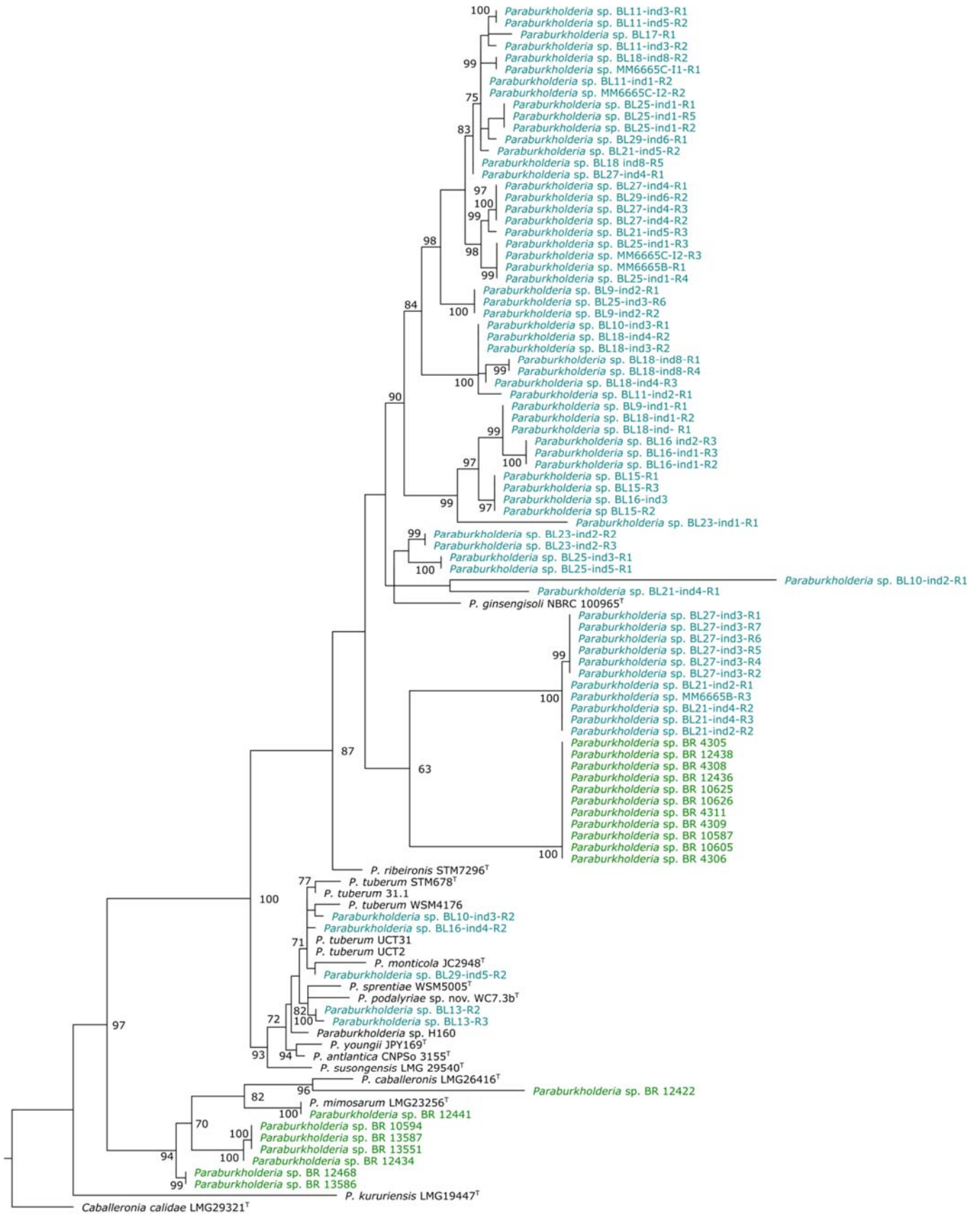
Phenotypic characteristics <sup>a</sup>	<i>Paraburkholderia podalyriae</i> sp. nov.			<i>Paraburkholderia tuberum</i> *												
	WC7.3b <sup>T</sup>	WC7.3d	WC7.3g	WSM4180	WSM4176	HC6.4b	Kb1A	Cpub6	Clong3	CI2	CI3	UCT31	UCT2	UCT70	RAU6.4a	HC1.1bd
<b>Isolation source</b>	RN	RN	RN	RN	RN	RN	RN	RN	RN	RN	RN	RN	RN	RN	RN	RN
<b>Nitrate reduction</b>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<b>Motility</b>	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
<b>Growth conditions:</b>																
Temperature (°C)	10-40	10-40	10-40													
pH	4-8	4-8	4-8													
Salinity (NaCl%)	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1	0-1
<b>Activity of:</b>																
Arginine dihydrolase	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tryptophan deaminase	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urease	+	-	+	+	+	+	w+	+	+	+	+	+	+	w+	-	-
β-Galactosidase	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
β-Glucosidase	-	-	-													
Catalase	w+	+	w+													
Oxidase	+	+	+													
<b>Assimilation of:</b>																
D-Glucose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
L-Arabinose	w+	w+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
D-Mannose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
D-Mannitol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
N-Acetyl-Glucosamine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Potassium gluconate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
D-Maltose	-	-	-	-	+	-	-	+	+	+	+	+	+	+	+	+
Adipic acid	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Malic acid	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Trisodium citrate	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
Capric acid	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	-
Phenylacetic acid	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+
<b>Fermentation of:</b>																
Adonitol	+	+	+	+	+	+	+	w+	+	+	+	+	+	+	-	+
L-Arabinose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
D-arabitol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
D-cellobiose	-	-	w+	-	-	w+	+	+	w+	+	+	-	-	+	-	-
D-fructose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
L-fucose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

$\alpha$ -D-lactose	-	w+	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maltose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-melibiose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-raffinose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L-rhamnose	w+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
D-Sorbitol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Sucrose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-trehalose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylitol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Glucose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
D-Mannitol	w+	w+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inositol	w+	w+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
$\alpha$ -cyclodextrin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dextrin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glycogen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tween 40	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Tween 80	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
N-Acetyl-D-Galactosamine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
N-Acetyl-D-Glucosamine	+	+	+	+	+	+	+	+	w+	+	+	w+	+	+	+	+
i-Erythritol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Galactose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gentiobiose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lactulose	-	w+	-	+	+	+	+	+	+	w+	+	+	+	-	-	-
D-Mannose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
$\beta$ -Methyl-D-Glucoside	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D- Psicose	-	w+	-	w+	-	-	-	-	-	-	-	-	-	-	-	-
Turanose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyruvic Acid Methyl	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Ester																
Succinic Acid Mono-Methyl- Ester	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Acetic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cis-Aconitic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Citric Acid	+	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+
Formic Acid	-	-	w+	-	-	-	-	-	-	-	-	-	-	-	w+	-
D-Galactonic Acid Lactone	+	+	+	+	-	+	+	+	+	w+	+	+	-	+	w+	+
D-Galacturonic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
D-Gluconic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
D-Glucosaminic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
D-Glucuronic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
$\alpha$ -Hydroxybutyric Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
$\beta$ -Hydroxybutyric Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
$\gamma$ -Hydroxybutyric Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
$\rho$ -HydroxyPhenylacetic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Itaconic Acid	+	w+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
$\alpha$ -Keto Butyric Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
$\alpha$ -Keto Glutaric Acid	-	w+	-	-	-	-	-	-	-	-	-	-	-	-	w+	+
$\alpha$ -Keto Valeric Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D,L-Lactic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Malonic Acid	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+
Propionic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Quinic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
D-Saccharic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Sebacic Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Succinic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Bromosuccinic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Succinamic Acid	+	+	+	+	-	+	+	+	w+	+	+	+	+	+	+	+

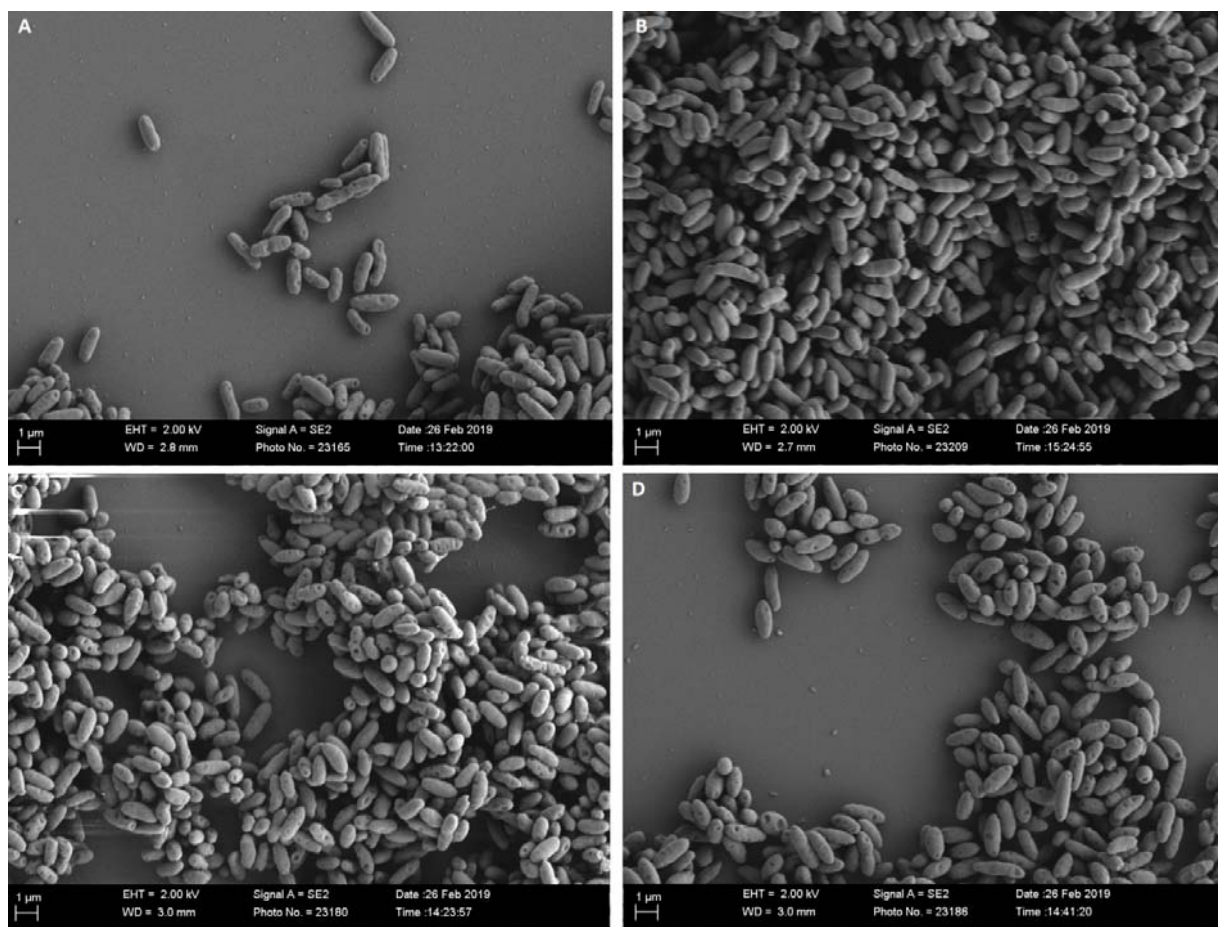
Glucuronamide	+	-	-	-	-	-	-	-	-	-	-	-	+	-	-	+
L-Alaninamide	+	-	+	w+	-	-	-	-	-	-	-	w+	-	-	-	+
D-Alanine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
L-Alanine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
L-Alanyl-glycine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L-Asparagine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
L-Aspartic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
L-Glutamic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Glycyl-L-Aspartic Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glycyl-L-Glutamic Acid	+	+	+	+	-	-	+	-	w+	-	-	w+	-	-	w+	+
L-Histidine	+	+	+	+	-	+	-	-	-	+	+	+	+	+	+	+
Hydroxyl-L-Proline	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
L-Leucine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L-Ornithine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
L-Phenylalanine	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
L-Proline	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
L-Pyroglutamic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
D-Serine	-	-	-	-	+	-	-	-	+	-	+	+	-	-	w+	-
L-Serine	+	+	+	+	-	-	+	+	+	+	+	+	+	+	-	+
L-Threonine	-	-	-	-	-	-	w+	-	-	-	-	-	+	w+	-	-
D,L-Camitine	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
$\gamma$ -Amino Butyric Acid	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Urocanic Acid	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inosine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Uridine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thymidine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenyethyl-amine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Putrescine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Aminoethanol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,3 Butanediol	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Glycerol	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
D,L- $\alpha$ -Glycerol Phosphate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
$\alpha$ -D-Glucose-1-Phosphate	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D-Glucose-6-Phosphate	+	+	+	+	+	+	+	+	+	+	+	+	-	+	+	+
<b>Whole genome data</b>																
G+C content (mol%)	62.	ND	ND		62.							62.	63.			
	7				11							98	38			

<sup>a</sup> Phenotypic characteristics were tested in this study using the API 20NE and BIOLOG GN2 kits. Sources of the rhizobia and results of the tests are indicated as follows: RN, root nodule; RH, rhizosphere; +, positive; w+, weakly positive; -, negative; ND, no data available.

\* Phenotypic tests results were supplemented with those from Mthombeni et al. [2012].



**Suppl. Fig. S1** A phylogeny inferred using nucleotide sequences of the *recA* gene showing five strains (BL10-ind3-R2, BL16-ind4-R2, BL29-ind5-R2, BL13-R2 and BL13-R3) from *Podalyria calyptata* grouping with *P. tuberosum* and its close relatives. Statistical support higher than 70% is indicated at the respective nodes. The scale bar indicates the number of nucleotide changes per site. The DNA sequences for *C. calidae* LMG 29321<sup>T</sup> [Peeters et al., 2016; Dobritsa et al., 2016, 2017], *P. kururiensis* JCM 10599<sup>T</sup> [Zhang et al., 2000], *P. caballeronis* LMG 26416<sup>T</sup> [Martínez-Aguilar et al., 2013] and *P. mimosarum* LMG 23256<sup>T</sup> [Chen et al., 2006] were used for outgroup purposes, with the phylogenies rooted with *C. calidae* LMG 29321<sup>T</sup>. Strains indicated in black have whole genome sequences available. Isolates indicated in green are symbionts of *Calliandra* species [Zilli et al., 2021], and isolates indicated in teal are symbionts of *Podalyria calyptata* [Lemaire et al., 2016b].



**Suppl. Fig 2** Scanning electron microscopy for selected strains representing *Paraburkholderia tuberosum* [A, 31.1; B, UCT2; C, WSM4176] and our novel species *Paraburkholderia podalyriae* sp. nov. [D, WC7.3b<sup>T</sup>]. The cells were magnified at  $\times 10000$  with the Zeiss Crossbeam 540 FEG Scanning Electron Microscopy, using the infrastructure of the Laboratory for Microscopy and Microanalysis Unit of the University of Pretoria.