

Supplementary Table 1: List of the 214 genomes composing our dataset and their characteristics. Generation times were retrieved from the literature. We defined the minimum generation time (Column “d” in hours) as the smallest value reported (Column “d reference”) for one species. For very few bacteria the generation times for closely related species were used. The optimum growth temperature of the species (Column “OGT” in °C) was retrieved from DSMZ database. The predicted origin of replication (Column “Ori”) was retrieved from DoriC database.

Species name	Ori	OGT	d (h)	d reference
<i>Acidovorax avenae</i>	27627	28	11	[1]
<i>Acaryochloris marina</i>	3125510	25	45	[2]
<i>Actinobacillus pleuropneumoniae</i>	1883252	37	0.75	[3]
<i>Acinetobacter ADP1</i>	3598158	30	0.5	[4]
<i>Aeromonas hydrophila</i>	4729112	28	0.35	[5]
<i>Aeropyrum pernix</i>		95	4	[6]
<i>Agrobacterium tumefaciens C58</i>	2841174	26	3	[7]
<i>Alcanivorax borkumensis</i>	3119635	28	10	[8]
<i>Anaeromyxobacter dehalogenans</i>	1396	30	9.2	[9]
<i>Anaplasma marginale</i>	1147944	37	21.6	[10]
<i>Anaplasma phagocytophilum</i>	20557	37	7	[11]
<i>Anabaena variabilis</i>	1502	20	8	[12]
<i>Aquifex aeolicus</i>	209842	95	1.8	[13]
<i>Arthrobacter aurescens</i>	1420	30	2	[14]
<i>Arcobacter butzleri</i>	2341023	37	0.66	[15]
<i>Archaeoglobus fulgidus</i>		85	4	[16]
<i>Azoarcus</i> sp EbN1	1677877	28	4.3	[17]
<i>Bacillus anthracis</i> Ames	1748	37	0.5	[18]
<i>Bacillus cereus</i> ATCC 14579	1622	30	0.3	[19]
<i>Bacteroides fragilis</i>	110151	37	0.63	[20]
<i>Bacillus halodurans</i>	4202339	30	0.6	[21]
<i>Bartonella henselae</i> Houston-1	1930403	37	3	[22]
<i>Bacillus licheniformis</i> ATCC14580	1848	37	0.58	[23]
<i>Bartonella quintana</i> Toulouse	1580795	37	3	[24]
<i>Bacillus subtilis</i> 168	1751	37	0.43	[25]
<i>Bacteroides thetaiotaomicron</i> VPI5482	4171767	37	1.47	[26]
<i>Bacillus thuringiensis</i> konkukian 97-27	1750	30	0.42	[27]
<i>Bdellovibrio bacteriovorus</i>	1417	30	1.4	[28]

<i>Bifidobacterium longum</i> NCC2705	1625766	37	1.51	[29]
<i>Bordetella bronchiseptica</i> RB50	5337389	37	1.42	[30]
<i>Borrelia burgdorferi</i>	458037	30	4	[31]
<i>Borrelia garinii</i> PBI	460244	37	4	[31]
<i>Bordetella pertussis</i> 12822	4084466	37	3.8	[32]
<i>Brucella abortus</i> biovar1 9-941	2010519	37	2	[33]
<i>Bradyrhizobium japonicum</i> USDA110	680553	26	20	[34]
<i>Brucella melitensis</i> 16M	2116944	37	2	[35]
<i>Brucella suis</i> 1330	1993857	37	2	[36]
<i>Buchnera aphidicola</i> Sg	641022	22	36	[37]
<i>Buchnera aphidicola</i> Baizongia pistaciae	1	22	36	[37]
<i>Burkholderia mallei</i> ATCC23344	3006500	37	0.75	Personal communication
<i>Burkholderia pseudomallei</i> K96243	2376	37	1	Personal communication
Candidatus <i>Blochmannia floridanus</i>	704749	30	36	[38]
<i>Caulobacter crescentus</i>	4016703	30	1.5	[39]
<i>Carboxydotherrmus hydrogenoformans</i>	2399734	68	2	[16]
<i>Campylobacter jejuni</i>	1324	37	1.5	[40]
<i>Caldivirga maquilingensis</i>		83	8	[41]
Candidatus <i>Pelagibacter ubique</i>	335453		30	[42]
<i>Chlamydophila abortus</i> S26/3	1144232	37	24	[43]
<i>Chloroflexus aurantiacus</i>	5258006	49	6	[44]
<i>Chlamydophila caviae</i> GPIC	1173153	37	24	[43]
<i>Chlamydia trachomatis</i> M	1072919	37	24	[43]
<i>Chlamydia pneumonia</i> A	1	37	24	[43]
<i>Chlorobium tepidum</i> TLS	1127	30	2	[45]
<i>Chlamydia trachomatis</i>	719974	37	24	[43]
<i>Chromobacterium violaceum</i> ATCC12472	236386	26	0.8	[46]
<i>Clostridium acetobutylicum</i> ATCC824	1808	37	0.58	[47]
<i>Clostridium perfringens</i> 13	1784	37	0.2	[48]
<i>Clostridium tetani</i> E88	50965	37	0.5	[49]
<i>Coxiella burnetii</i> RSA 493	1835517	37	8	[50]
<i>Corynebacterium glutamicum</i>	1576	30	1.2	[51]
<i>Colwellia psychrerythraea</i>	5367414	10	7.14	[52]

<i>Delftia acidovorans</i>	26889	30	4.62	[53]
<i>Dehalococcoides ethenogenes</i> 195	1599	35	19	[54]
<i>Desulfotalea psychrophila</i> LSv54	709557	7	27	[55]
<i>Deinococcus radiodurans</i> chromosome1	1183	30	1.5	[56]
<i>Desulfotomaculum reducens</i>	1691	37	20	[57]
<i>Desulfovibrio vulgaris vulgaris</i> Hildenborough	3570715	32	14	[58]
<i>Dinoroseobacter shibae</i>	3633375	33	4.08	[59]
<i>Ehrlichia canis</i>	11395	37	28	[60]
<i>Ehrlichia chaffeensis</i>	26939	37	19	[60]
<i>Enterococcus faecalis</i> V583	1403	37	0.5	[61]
<i>Enterobacter sakazakii</i>	3960616	37	0.23	[62]
<i>Erwinia carotovora atroseptica</i> SCRI1043	5063660	28	0.2	[63]
<i>Escherichia coli</i> MG1655	3923657	37	0.35	[64]
<i>Francisella tularensis</i>	1892387	37	3	[65]
<i>Fusobacterium nucleatum</i>	641869	37	0.72	[20]
<i>Geobacter sulfurreducens</i> PCA	1368	30	6	[66]
<i>Gluconobacter oxydans</i> 621H	1139728	28	0.94	[67]
<i>Gloeobacter violaceus</i>	3438638		72	[68]
<i>Gramella forsetii</i>	3458688		4.17	[69]
<i>Haemophilus ducreyi</i> 35000HP	1698708	36	1.8	[70]
<i>Haemophilus influenzae</i>	603005	36	0.5	[64]
<i>Haloarcula marismortui</i>		50	12	[71]
<i>Halobacterium</i> sp. Strain NRC-1		37	9	[72]
<i>Haloquadratum walsbyi</i>		37	24	[73]
<i>Herpetosiphon aurantiacus</i>	6345664	30	20	[74]
<i>Helicobacter hepaticus</i> ATCC51449	1081990	37	4.2	[75]
<i>Helicobacter pylori</i>	1608998	37	2.4	[76]
<i>Hyperthermus butylicus</i>		99	2	[16]
<i>Ignicoccus hospitalis</i>		90	0.83	[77]
<i>Lactobacillus acidophilus</i> NCFM	1993119	45	1.8	[78]
<i>Lactobacillus johnsonii</i> NCC533	1992003	30	0.9	[79]
<i>Lactococcus lactis</i> IL1403	1726	40	0.7	[80]
<i>Lactobacillus plantarum</i> WCFS1	1369	30	1.6	[81]
<i>Leptospira interrogans</i> serovar lai 56601 chr1	1566	29	9	[82]
<i>Legionella pneumophila pneumophila</i> Philadelphia 1	3397647	37	3.3	[83]

<i>Leifsonia xyli xyli</i> CTCB07	1647	23	5	[84]
<i>Listeria innocua</i> Clip11262	1675	22	0.6	[85]
<i>Listeria monocytogenes</i> strain EGD	1674	23	1	[64]
<i>Mannheimia succiniciproducens</i> MBEL55E	2281135	37	0.6	[86]
<i>Methanosarcina barkeri</i>		37	12	[87]
<i>Methanococcoides burtonii</i>		32	20	[88]
<i>Methylococcus capsulatus</i>	3302726	37	1.87	[89]
<i>Methylobacterium extorquens</i>	5470388	28	4.2	[90]
<i>Methylobacillus flagellatus</i>	1459	36	2	[91]
<i>Methanococcus jannaschii</i>		83	0.5	[16]
<i>Methanopyrus kandleri</i>		98	0.83	[92]
<i>Mesorhizobium loti</i>	4478943	26	2.4	[93]
<i>Methanobacterium thermoautotrophicum</i>		65	1	[94]
<i>Moorella thermoacetica</i>	228	58	5	[95]
<i>Mycobacterium avium</i> paratuberculosis k10	1531	37	10	[96]
<i>Mycobacterium bovis bovis</i> AF2122/97	1525	37	23	[97]
<i>Mycoplasma capricolum</i>	1009729	37	2.5	[98]
<i>Mycoplasma gallisepticum</i> R	2682	37	1	Personal communication
<i>Mycoplasma genitalium</i>	578582	37	12	[99]
<i>Mycoplasma hyopneumoniae</i> 232	513000	37	2	[100]
<i>Mycobacterium leprae</i>	1567	37	240	[101]
<i>Mycoplasma mobile</i> 163K	1	20	10	[102]
<i>Mycoplasma mycoides mycoides</i> SC	1211535	45	2.2	[98]
<i>Mycoplasma pneumoniae</i>	816339	37	6	[99]
<i>Mycoplasma pulmonis</i> UAB CTIP	1	37	1.5	[103]
<i>Mycobacterium tuberculosis</i>	1525	37	19	[97]
<i>Myxococcus xanthus</i>	9139603	30	5	[104]
<i>Nanoarchaeum equitans</i>		90	0.75	[105]
<i>Neisseria gonorrhoeae</i> FA1090	1917745	36	0.58	[106]
<i>Neisseria meningitidis</i> A	219873	37	0.72	[107]
<i>Nitrosomonas europaea</i> ATCC19718	1591	27	18.5	[43]
<i>Nitrobacter winogradskyi</i>	114297	28	8	[108]
<i>Nocardia farcinica</i>	1990	37	3	[109]
<i>Nostoc</i> sp. PCC 7120	2404398		12	[110]

<i>Oenococcus oeni</i>	1780070	24	10.5	[111]
<i>Paracoccus denitrificans</i>	2851745	30	2.1	[112]
<i>Pasteurella multocida</i> PM70	1677118	37	1	[113]
<i>Parachlamydia</i> sp UWE25	1		48	[114]
<i>Petrotoga mobilis</i>	1423266	55	12	[115]
<i>Photorhabdus luminescens laumondii</i> TTO1	44490	28	0.5	Personal communication
<i>Photobacterium profundum</i> SS9	4085022	10	2.5	[116]
<i>Pirellula</i> sp	5455000	28	10	[117]
<i>Picrophilus torridus</i> DSM 9790		60	6	[118]
<i>Porphyromonas gingivalis</i> W83	2342805	37	2.7	[119]
<i>Propionibacterium acnes</i> KPA171202	1748	31	5.1	[120]
<i>Prochlorococcus marinus marinus</i> CCMP1375	1750905		17	[121]
<i>Pseudomonas aeruginosa</i> PA01	6264361	37	0.5	[64]
<i>Pseudoalteromonas haloplanktis</i>	3208603	26	0.5	[122]
<i>Psychromonas ingrahamii</i>	4558259	12	12	[123]
<i>Pseudomonas putida</i> KT2440	8947	27	1.1	[124]
<i>Pseudomonas syringae</i> tomato DC3000	6396882	27	1.47	[125]
<i>Pyrococcus abyssi</i>		96	0.62	[16]
<i>Pyrobaculum aerophilum</i>		100	3	[16]
<i>Pyrobaculum arsenaticum</i>		95	1.3	[126]
<i>Pyrococcus furiosus</i>		100	0.62	[16]
<i>Pyrococcus horikoshii</i>		98	0.62	[16]
<i>Ralstonia solanacearum</i> GMI1000	3716277	30	4	[127]
<i>Rhodferax ferrireducens</i>	40520	25	8	[128]
<i>Rhodopseudomonas palustris</i>	322962	33	9	[129]
<i>Rhodococcus</i> sp. Strain RHA1	3871702	30	5.3	[130]
<i>Rhodospirillum rubrum</i>	4154190	28	3.8	[131]
<i>Rhodobacter sphaeroides</i>	3004887	32	3	[132]
<i>Rickettsia conorii</i> Malish 7	1268361	35	4.1	[133]
<i>Rickettsia prowazekii</i>	1111140	35	10	[134]
<i>Rickettsia typhi</i> wilmington	1111114	35	10	[135]
<i>Rubrobacter xylanophilus</i>	1355	60	3.85	[136]
<i>Salinibacter ruber</i>	12594	42	14	[137]
<i>Salmonella typhimurium</i> LT2	4083788	37	0.4	[64]

<i>Shewanella oneidensis</i> MR-1	6419	30	0.66	[138]
<i>Sinorhizobium meliloti</i> 1021	1	28	1.5	[139]
<i>Silicibacter pomeroyi</i>	4105854		1.65	[140]
<i>Sorangium cellulosum</i>	11354923	30	16	[104]
<i>Sodalis glossinidius</i>	4127547	25	26	[141]
<i>Sphingopyxis alaskensis</i>	1535		2.39	[142]
<i>Streptococcus agalactiae</i> 2603VR	1464	37	1.8	[143]
<i>Staphylococcus aureus</i> strain N315	1879	34	0.4	[144]
<i>Streptomyces coelicolor</i> A3(2)	4269844	30	2.2	[145]
<i>Staphylococcus epidermidis</i> ATCC 12228	1718	34	0.8	[146]
<i>Staphylothermus marinus</i>		87	6.3	[147]
<i>Streptococcus mutans</i> UA159	1553	37	0.75	[148]
<i>Streptococcus pneumoniae</i> TIGR4	1559	37	0.5	[149]
<i>Streptococcus pyogenes</i> M1	1588	37	0.4	[150]
<i>Streptococcus thermophilus</i> LMG18311	1551	37	0.43	[151]
<i>Sulfolobus acidocaldarius</i>		70	5.67	[16]
<i>Sulfolobus solfataricus</i>		87	6	[16]
<i>Sulfolobus tokodaii</i>		80	6	[16]
<i>Syntrophus aciditrophicus</i>	1529	35	24	[152]
<i>Synechococcus elongatus</i> PCC6301	1620819	32	6.1	[153]
<i>Syntrophobacter fumaroxidans</i>	3503182	37	97.86	[154]
<i>Synechocystis</i> PCC6803	665000	35	12	[155]
<i>Symbiobacterium thermophilum</i>	1378	60	4.2	[156]
<i>Synechococcus</i> sp WH8102	2434168	32	6	[157]
<i>Thermoplasma acidophilum</i>		59	2.5	[16]
<i>Thiomicrospira crunogena</i>	2427456	30	1	[158]
<i>Thermosynechococcus elongatus</i> BP-1	2338968	55	5.4	[159]
<i>Thermotoga maritima</i>	156961	80	1.2	[160]
<i>Thermoanaerobacter tengcongensis</i>	1697	75	1.1	[161]
<i>Thermus thermophilus</i> HB27	1524341	75	2.5	[162]
<i>Thermoplasma volcanium</i>		60	2.5	[16]
<i>Treponema denticola</i> ATCC35405	265084	37	5	[163]
<i>Trichodesmium erythraeum</i>	2409	28	25	[164]
<i>Treponema pallidum</i>	1399	37	33	[165]
<i>Tropheryma whipplei</i> Twist	1438	37	28	[166]

<i>Ureaplasma urealyticum</i>	42000	37	0.9	Personal communication
<i>Vibrio cholerae</i>	2961047	37	0.2	[38]
<i>Vibrio fischeri</i> ES114	2906069	30	0.3	[167]
<i>Vibrio parahaemolyticus</i>	3288455	25	0.2	[168]
<i>Vibrio vulnificus</i> CMCP6 chr1	1012335	25	0.16	[38]
<i>Wigglesworthia glossinidia</i> <i>brevipalpis</i>	697376		36	Personal communication
<i>Wolbachia</i> endosymbiont TRS <i>Brugia malayi</i>	1079740		14	[169]
<i>Wolinella succinogenes</i>	2110228	37	1	[170]
<i>Xanthomonas axonopodis</i>	1371	27	7	[171]
<i>Xanthomonas campestris</i>	1371	37	3	[172]
<i>Xanthomonas oryzae</i> <i>oryzae</i> KACC10331	1374	28	2	[173]
<i>Xylella fastidiosa</i> 9a5c	1463	28	5.13	[174]
<i>Yersinia pestis</i> CO92	4653618	37	1.25	[175]
<i>Yersinia pseudotuberculosis</i>	4744561	37	0.5	[176]
<i>Zymomonas mobilis</i>	2055615	27	2	[177]

Supplementary Table 1 References:

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