

#### S4: Conservation of genes, interactions, genome size and number of predicted transcription factors for each of the 176 genomes

For the complete list of predicted transcription factors using our method, please visit:  
<http://www.mrc-lmb.cam.ac.uk/genomes/madanm/evdy/>

Genome	Abbrv. in Fig2	%Genes conserved	%Interactions conserved	Genome size	Predicted Tfs	Phyla
Bifidobacterium_longum	Blo	31.61	13.59	1727	87	actinobacteria
Corynebacterium_diphtheriae	Cdi	38.25	15.67	2272	88	actinobacteria
Corynebacterium_efficiens_YS-314	Cef	41.57	22.77	2950	131	actinobacteria
Corynebacterium_glutamicum	Cgl	42.37	23.01	2993	142	actinobacteria
Mycobacterium_bovis	Mbo	42.77	17.14	3920	177	actinobacteria
Mycobacterium_leprae	Mle	30.02	12.04	1605	39	actinobacteria
Mycobacterium_tuberculosis_CDC1551	Mtu_C	42.77	17.14	4187	172	actinobacteria
Mycobacterium_tuberculosis_H37Rv	Mtu_H	43.3	17.37	3927	173	actinobacteria
Streptomyces_avermitilis	Sav	52.2	27.79	7575	623	actinobacteria
Streptomyces_coelicolor	Scoe	52.59	25.32	7769	723	actinobacteria
Thermobifida_fusca	Tfus	39.71	11.19	2941	164	actinobacteria
Tropheryma_whipplei_Twist	Twh_T	17.93	1.31	808	8	actinobacteria
Tropheryma_whipplei_TW08_27	Twh_TW	18.2	1.31	783	7	actinobacteria
Aquifex_aeolicus	Aae	33.21	7.18	1529	33	aquificae
Bacteroides_thetaiotaomicron_VPI-5482	Bth_V	42.77	13.82	4778	235	bacteroidetes
Cytophaga_hutchinsonii	Chu	38.78	11.42	3499	96	bacteroidetes
Porphyromonas_gingivalis_W83	Pgi	27.36	10.27	1909	64	bacteroidetes
Chlamydomphila_caviae	Cca	18.6	2.77	998	7	chlamydiae
Chlamydia_muridarum	Cmu	17.27	1.46	904	4	chlamydiae
Chlamydomphila_pneumoniae_AR39	Cpn_A	18.46	2.31	1112	7	chlamydiae
Chlamydomphila_pneumoniae_CWL029	Cpn_C	18.73	2.31	1054	7	chlamydiae
Chlamydomphila_pneumoniae_J138	Cpn_J	19	2.39	1069	7	chlamydiae
Chlamydomphila_pneumoniae_TW_183	Cpn_T	18.86	2.39	1113	7	chlamydiae
Chlamydia_trachomatis	Ct	17.27	1.23	895	6	chlamydiae
Chlorobium_tepidum_TLS	Ctep	34.27	10.96	2252	33	chlorobi
Chloroflexus_aurantiacus	Cau	42.9	15.59	3995	114	chloroflexi
Aeropyrum_ Pernix	Ap	25.5	6.02	1841	30	crenarchaeota
Pyrobaculum_aerophilum	Pyae	28.82	4.4	2605	57	crenarchaeota
Sulfolobus_solfataricus	Sso	33.21	4.86	2977	115	crenarchaeota
Sulfolobus_tokodaii	Sst	30.02	7.49	2826	102	crenarchaeota
Nostoc_sp	Ana	42.63	13.35	5366	143	cyanobacteria
Gloeobacter_violaceus	Gvi	42.63	16.21	4430	149	cyanobacteria
Nostoc_punctiforme	Npu	42.9	16.52	6037	148	cyanobacteria
Prochlorococcus_marinus_CCMP1375	Pmar_C	30.55	8.72	1882	20	cyanobacteria
Prochlorococcus_marinus_MIT9313	Pmar_M	34.67	13.51	2265	31	cyanobacteria
Prochlorococcus_marinus_MED4	Pmar_ME	31.08	8.18	1712	22	cyanobacteria
Synechococcus_sp_WH8102	Scsp	36.13	8.72	2517	34	cyanobacteria
Synechocystis_PCC6803	Ssp	38.12	10.65	3167	91	cyanobacteria

Trichodesmium_erythraeum	Ter	38.25	10.96	3914	68	cyanobacteria
Thermosynechococcus_elongatus	Thel	33.6	10.5	2475	41	cyanobacteria
Deinococcus_radiodurans	Dr	39.45	11.66	2629	78	deinococcus
Archaeoglobus_fulgidus	Af	30.02	7.87	2420	95	euryarchaeota
Ferroplasma_acidarmanus	Fac	26.3	5.4	1745	46	euryarchaeota
Halobacterium_sp	H_sp	29.22	1.54	2075	63	euryarchaeota
Methanosarcina_acetivorans	Mac	34.53	4.24	4540	118	euryarchaeota
Methanosarcina_barkeri	Mba	32.94	8.95	3420	76	euryarchaeota
Methanococcus_jannaschii	Mj	24.97	4.4	1729	50	euryarchaeota
Methanopyrus_kandleri	Mka	23.51	2.85	1687	28	euryarchaeota
Methanosarcina_mazei	Mma	34	10.19	3371	95	euryarchaeota
Methanothermobacter_thermautotrophicus	Mta	25.5	1.62	1866	46	euryarchaeota
Methanobacterium_thermoautotrophicum	Mth	25.24	1.85	1873	47	euryarchaeota
Pyrococcus_abyssi	Pa	28.42	3.32	1896	73	euryarchaeota
Pyrococcus_furiosus	Pfu	28.16	1.38	2125	82	euryarchaeota
Pyrococcus_horikoshii	Ph	27.23	5.55	1956	68	euryarchaeota
Thermoplasma_acidophilum	Tac	23.51	4.47	1482	54	euryarchaeota
Thermoplasma_volcanium	Tvo	25.24	8.03	1499	50	euryarchaeota
Bacillus_anthraxis_A2012	Ban_A2	51.27	24.4	5544	296	firmicutes
Bacillus_anthraxis_Ames	Ban_Am	50.47	20.38	5311	305	firmicutes
Bacillus_cereus_ATCC14579	Bc_A	50.6	19.22	5234	293	firmicutes
Bacillus_halodurans	Bha	50.87	24.4	4066	247	firmicutes
Bacillus_subtilis	Bs	50.07	26.56	4112	249	firmicutes
Clostridium_acetobutylicum	Cac	40.51	13.43	3672	211	firmicutes
Clostridium_perfringens	Cpe	35.6	18.14	2660	118	firmicutes
Clostridium_tetani_E88	Cte_E	32.28	13.51	2373	118	firmicutes
Clostridium_thermocellum	Cth	32.28	8.8	2532	73	firmicutes
Desulfitobacterium_hafniense	Dha	54.59	33.51	6810	335	firmicutes
Enterococcus_faecalis_V583	Efa_V	36.39	11.04	3113	172	firmicutes
Lactobacillus_gasseri	Lga	23.78	8.18	1641	85	firmicutes
Listeria_innocua	Lin	38.38	13.2	2968	184	firmicutes
Lactococcus_lactis	Lla	34.27	11.04	2321	121	firmicutes
Leuconostoc_mesenteroides	Lme	29.89	8.57	1846	89	firmicutes
Listeria_monocytogenes	Lmo	39.85	16.13	2846	188	firmicutes
Lactobacillus_plantarum	Lpl	38.38	7.87	3009	215	firmicutes
Mycoplasma_gallisepticum	Mga	13.15	1.31	726	5	firmicutes
Mycoplasma_genitalium	Mge	10.5	0.23	484	4	firmicutes
Mycoplasma_penetrans	Mpe	15.94	2.93	1037	9	firmicutes
Mycoplasma_pneumoniae	Mpn	11.56	0.15	689	4	firmicutes
Mycoplasma_pulmonis	Mpu	15.14	0.92	782	7	firmicutes
Oceanobacillus_iheiyensis	Oih	48.74	17.68	3500	181	firmicutes
Oenococcus_oeni	Ooe	28.69	5.86	1639	71	firmicutes
Staphylococcus_aureus_Mu50	Sa_Mu	41.31	17.29	2714	124	firmicutes
Staphylococcus_aureus_MW2	Sa_MW	42.37	18.14	2632	115	firmicutes
Staphylococcus_aureus_N315	Sa_N	41.04	17.14	2593	117	firmicutes
Streptococcus_agalactiae_2603	Sag_2	31.74	10.73	2124	106	firmicutes
Streptococcus_agalactiae_NEM316	Sag_N	32.41	11.58	2094	101	firmicutes
Staphylococcus_epidermidis_ATCC_12228	Sep_A	38.52	16.21	2419	92	firmicutes
Streptococcus_mutans	Smu	31.21	8.41	1960	122	firmicutes

Streptococcus_pneumoniae_R6	Spn	32.01	4.01	2043	91	firmicutes
Streptococcus_pneumoniae_TIGR4	Spn_T	30.82	3.78	2094	92	firmicutes
Streptococcus_pyogenes	Spy	28.42	10.11	1697	79	firmicutes
Streptococcus_pyogenes_MGAS315	Spy_M3	28.29	9.65	1865	92	firmicutes
Streptococcus_pyogenes_MGAS8232	Spy_M8	28.29	9.8	1845	101	firmicutes
Streptococcus_pyogenes_SSI-1	Spy_S	28.16	9.34	1861	89	firmicutes
Thermoanaerobacter_tengcongensis	Tte	37.72	14.82	2588	113	firmicutes
Ureaplasma_urealyticum	Uu	11.03	0.3	614	5	firmicutes
Fusobacterium_nucleatum	Fnu	31.35	11.73	2067	54	fusobacteria
Nanoarchaeum_equitans	Meq	9.97	0.61	563	9	nanoarchaeota
Pirellula_sp	Psp	42.63	10.5	7325	124	planctomycetes
Agrobacterium_tumefaciens_C58_Cereon	Atu_c	43.7	24.71	2721	161	proteobacteria
Agrobacterium_tumefaciens_C58_UWash	Atu_w	43.3	24.01	2785	168	proteobacteria
Azotobacter_vinelandii	Avi	59.9	44.47	4230	251	proteobacteria
Buchnera_aphidicola	Bap	15.14	0.54	504	4	proteobacteria
Buchnera_aphidicola_Sg	Bap_S	17.93	3.78	546	9	proteobacteria
Bordetella_bronchiseptica	Bbr	54.85	29.88	4994	435	proteobacteria
Blochmannia_floridanus	Bfl	19.13	0.15	583	6	proteobacteria
Burkholderia_fungorum	Bfu	64.55	42.85	7151	560	proteobacteria
Brucella_melitensis	Bmel	37.99	20.69	2059	89	proteobacteria
Bordetella_pertussis	Bp	49.01	26.25	3447	481	proteobacteria
Bordetella_parapertussis	Bpp	53.26	29.72	4185	370	proteobacteria
Bradyrhizobium_japonicum	Brja	59.77	43.93	8317	530	proteobacteria
Brucella_suis_1330	Bs_1	37.99	20.61	2116	85	proteobacteria
Buchnera_sp	Bsp	18.46	3.86	564	8	proteobacteria
Coxiella_burnetii	Cbu	32.67	13.82	2009	33	proteobacteria
Caulobacter_crescentus	Ccr	47.55	24.78	3737	206	proteobacteria
Campylobacter_jejuni	Cj	33.34	7.49	1634	27	proteobacteria
Chromobacterium_violaceum	Cvi	58.31	43.55	4407	246	proteobacteria
Desulfovibrio_desulfuricans	Dde	40.64	13.59	2853	107	proteobacteria
Escherichia_coli_CFT073	Ec_C	95.62	95.67	5379	300	proteobacteria
Escherichia_coli_K12	Ec_K	100	100	4311	268	proteobacteria
Escherichia_coli_O157H7	Ec_O	95.49	95.59	5361	305	proteobacteria
Escherichia_coli_O157H7_EDL933	Ec_OE	95.62	95.44	5324	297	proteobacteria
Geobacter_metalireducens	Gme	43.7	21.38	3025	76	proteobacteria
Haemophilus_ducreyi_35000HP	Hdu_3	33.74	23.55	1717	42	proteobacteria
Helicobacter_hepaticus	Hhe	33.47	7.18	1875	24	proteobacteria
Haemophilus_influenzae	Hi	45.02	31.04	1657	58	proteobacteria
Helicobacter_pylori_26695	Hp_2	27.23	6.79	1576	12	proteobacteria
Helicobacter_pylori_J99	Hp_J	28.16	3.86	1491	13	proteobacteria
Haemophilus_somnus	Hso	40.64	28.18	1647	50	proteobacteria
Klebsiella_pneumoniae	Kpn	23.11	13.28	438	33	proteobacteria
Legionella_pneumophila	Lpn	7.04	2.08	294	8	proteobacteria
Microbulbifer_degradans	Mde	49.67	34.05	3698	157	proteobacteria
Mesorhizobium_lotii	Mlo	59.63	32.04	6746	508	proteobacteria
Magnetospirillum_magnetotacticum	Mmag	55.12	38.14	8578	252	proteobacteria
Nitrosomonas_europaea	Neu	39.18	23.24	2461	94	proteobacteria
Neisseria_meningitidis_MC58	Nm_M	35.99	15.44	2079	57	proteobacteria
Neisseria_meningitidis_Z2491	Nm_Z	37.19	16.6	2065	51	proteobacteria

<i>Pseudomonas_aeruginosa</i>	Pae	64.68	48.95	5567	449	proteobacteria
<i>Pseudomonas_fluorescens</i>	Pfl	64.95	51.04	5711	417	proteobacteria
<i>Photobacterium_luminescens</i>	Plu	67.47	57.45	4683	307	proteobacteria
<i>Pasteurella_multocida</i>	Pmu	50.47	38.99	2015	67	proteobacteria
<i>Pseudomonas_putida_KT2440</i>	Ppu	60.56	47.18	5350	401	proteobacteria
<i>Pseudomonas_syringae</i>	Psy	63.35	50.27	5471	329	proteobacteria
<i>Rickettsia_conorii</i>	Rco	22.98	2.08	1374	14	proteobacteria
<i>Rhodobacter_sphaeroides</i>	Rhsp	52.59	30.42	4126	209	proteobacteria
<i>Ralstonia_metallidurans</i>	Rme	59.77	43.93	5798	432	proteobacteria
<i>Rickettsia_prowazekii</i>	Rp	18.86	1.69	835	9	proteobacteria
<i>Rhodopseudomonas_palustris</i>	Rpa	52.46	30.65	4577	240	proteobacteria
<i>Rhodospirillum_rubrum</i>	Rru	49.67	32.81	3700	197	proteobacteria
<i>Ralstonia_solanacearum</i>	Rsol	51	27.18	3440	206	proteobacteria
<i>Salmonella_enterica</i>	Sen	85.4	83.24	4655	279	proteobacteria
<i>Shigella_flexneri_2a</i>	Sfl	87.52	87.72	4180	223	proteobacteria
<i>Shigella_flexneri_2a_2457T</i>	Sfl_2	87.92	87.72	4068	217	proteobacteria
<i>Sinorhizobium_meliloti</i>	Sme	47.02	30.42	3341	219	proteobacteria
<i>Shewanella_oneidensis</i>	Son	58.57	43.16	4324	204	proteobacteria
<i>Novosphingobium_aromaticivorans</i>	Spar	47.15	27.25	3851	199	proteobacteria
<i>Salmonella_typhimurium_LT2</i>	St	87.79	88.18	4451	289	proteobacteria
<i>Salmonella_typhi</i>	Sty	86.19	87.02	4395	270	proteobacteria
<i>Salmonella_typhi_Ty2</i>	Sty_T	86.19	86.94	4323	269	proteobacteria
<i>Vibrio_cholerae</i>	Vch	51.53	41.77	2742	130	proteobacteria
<i>Vibrio_parahaemolyticus</i>	Vpa	52.99	43.32	3080	145	proteobacteria
<i>Vibrio_vulnificus_CMCP6</i>	Vvu_C	51.27	42	2972	127	proteobacteria
<i>Vibrio_vulnificus_YJ016</i>	Vvu_Y	53.39	45.55	3262	132	proteobacteria
<i>Wigglesworthia_glossinidia</i>	Wbe	17.53	1.93	657	11	proteobacteria
<i>Wigglesworthia_brevipalpis</i>	Wbr	17.4	1.85	611	11	proteobacteria
<i>Wolinella_succinogenes</i>	Wsu	36.79	8.33	2044	60	proteobacteria
<i>Xanthomonas_axonopodis</i>	Xax	50.34	26.1	4239	184	proteobacteria
<i>Xanthomonas_campestris</i>	Xca	51	31.04	4181	188	proteobacteria
<i>Xanthomonas_citri</i>	Xci	51	29.96	4312	190	proteobacteria
<i>Xylella_fastidiosa</i>	Xfa	39.31	20.3	2766	68	proteobacteria
<i>Xylella_fastidiosa_Temecula1</i>	Xfa_T	37.99	19.3	2034	54	proteobacteria
<i>Yersinia_pestis_CO92</i>	Ype_C	73.58	63.62	3885	236	proteobacteria
<i>Yersinia_pestis_KIM</i>	Ype_K	73.31	63.24	4090	225	proteobacteria
<i>Borrelia_burgdorferi</i>	Bb	14.75	0.69	851	3	spirochaetes
<i>Leptospira_interrogans</i>	Lint	37.19	13.51	4360	57	spirochaetes
<i>Treponema_pallidum</i>	Tp	18.07	4.55	1036	10	spirochaetes
<i>Thermotoga_maritima</i>	Tm	32.94	10.42	1858	58	thermotogae