

SUPPLEMENTARY DATA

Table S1. Detailed list of genomic information of the 76 *Clavibacter* strains retrieved from the NCBI GenBank database and the five *Clavibacter* genomes sequenced in this study (highlighted in light blue color). The strains presented in this table were used for different *in silico* analyses such as MLSA, ANI and *dddH* computation, reconstructed ML phylogenomic tree from core-genome alignment, ANI-based phylogeny, and taxonomy assessment of undefined species in the TYGS platform.

Former species name in NCBI	Proposed taxonomy	Strain ID	Biotope/host	Geographic origin	Year isolated	GenBank accession number	Assembly level	Genome size (Mb)	Scaffolds	Sequencing technology	Genome coverage	Assembly method
<i>Clavibacter michiganensis</i> subsp. <i>michiganensis</i>	<i>C. michiganensis</i>	CAYO001	<i>Solanum lycopersicum</i>	California, USA	2001	MDHL00000000	Contig	3.33	1	Illumina HiSeq; PacBio	100.0x	SPAdes v. 3.6; SMRT analysis v. 2.2.0
<i>C. m.</i> subsp. <i>michiganensis</i>	<i>C. michiganensis</i>	CASJ002	<i>Solanum lycopersicum</i>	California, USA	1999	MDHC00000000	Contig	3.28	1	Illumina MiSeq; PacBio	100.0x	SPAdes v. 3.6; SMRT analysis v. 2.2.0
<i>C. m.</i> subsp. <i>michiganensis</i>	<i>C. michiganensis</i>	LMG 7333 ^T	<i>Solanum lycopersicum</i>	Hungary	1957	MZMP00000000	Contig	3.39	5	PacBio	516.0x	Celera Assembler v. 1
<i>C. m.</i> subsp. <i>michiganensis</i>	<i>C. michiganensis</i>	NCPPB382	<i>Solanum lycopersicum</i>	UK	1956	NC_009480	Complete	3.40	-	Sanger ABI 3700		PHRAP
<i>C. m.</i> subsp. <i>michiganensis</i>	<i>C. michiganensis</i>	MSF322	<i>Solanum lycopersicum</i>	Chile	2005	NZ_CP047051	Complete	3.40	-	Hybrid assembly (MiniION/MiSeq)	139x	Unicycler v. 0.4.7
<i>C. m.</i> subsp. <i>michiganensis</i>	<i>C. michiganensis</i>	UF1	<i>Solanum lycopersicum</i>	Florida, USA	2012	NZ_CP033724	Complete	3.37	-	PacBio	396.0x	Canu v. 1.5
<i>C. m.</i> subsp. <i>michiganensis</i>	<i>C. michiganensis</i>	VL527	<i>Solanum lycopersicum</i>	Chile	2012	NZ_CP047054	Complete	3.40	-	Hybrid assembly (MiniION/MiSeq)	152x	Unicycler v. 0.4.7
<i>C. m.</i> subsp. <i>michiganensis</i>	<i>C. michiganensis</i>	VQ143	<i>Solanum lycopersicum</i> (plant tissue)	Chile	2000	NZ_CP076352	Complete	3.26	-	Hybrid assembly (MiniION/MiSeq)	547x	SPAdes v. 3.14.1
<i>C. m.</i> subsp. <i>michiganensis</i>	<i>C. michiganensis</i>	VQ28	<i>Solanum lycopersicum</i> (plant tissue)	Chile	1996	NZ_CP076349	Complete	3.36	-	Hybrid assembly (MiniION/MiSeq)	556x	Unicycler v. 0.4.8

<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CA00001	<i>Solanum lycopersicum</i> (plant tissue)	California, USA	2000	MDHK00000000	Contig	3.47	107	Illumina HiSeq	100.0x	SPAdes v. 3.6
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CA00002	<i>Solanum lycopersicum</i> (plant tissue)	California, USA	2000	MDHM00000000	Contig	3.28	1	Illumina HiSeq; PacBio	100.0x	SPAdes v. 3.6; SMRT analysis v. 2.2.0
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CASJ001	<i>Solanum lycopersicum</i> (plant tissue)	California, USA	1999	MDHB00000000	Contig	3.31	6	Illumina MiSeq; PacBio	90.0x	SPAdes v. 3.6; SMRT analysis v. 2.2.0
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CASJ003	<i>Solanum lycopersicum</i> (plant tissue)	California, USA	1999	MDHD00000000	Contig	3.25	423	Illumina HiSeq	100.0x	SPAdes v. 3.6
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CASJ004	<i>Solanum lycopersicum</i> (plant tissue)	California, USA	1999	MDHE00000000	Contig	3.31	469	Illumina HiSeq	100.0x	SPAdes v. 3.6
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CASJ005	<i>Solanum lycopersicum</i> (plant tissue)	California, USA	2001	MDHF00000000	Contig	3.20	313	Illumina MiSeq	90.0x	SPAdes v. 3.6
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CASJ006	<i>Solanum lycopersicum</i> (plant tissue)	California, USA	2002	MDHG00000000	Contig	3.37	2	Illumina MiSeq; PacBio	100.0x	SPAdes v. 3.6; SMRT analysis v. 2.2.0
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CASJ007	<i>Solanum lycopersicum</i> (plant tissue)	California, USA	2011	MDHH00000000	Contig	3.35	10	Illumina MiSeq; PacBio	100.0x	SPAdes v. 3.6; SMRT analysis v. 2.2.0
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CASJ008	<i>Solanum lycopersicum</i> (plant tissue)	California, USA	2002	MDHI00000000	Contig	3.39	32	Illumina HiSeq	90.0x	SPAdes v. 3.6
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	ARZ28	<i>Solanum lycopersicum</i> (plant tissue)	USA	2000	QLNE00000000	Contig	3.28	434	Illumina HiSeq	174.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	ATCC 10202	<i>Solanum lycopersicum</i> (plant tissue)	?	1946	QLMX00000000	Contig	3.28	334	Illumina HiSeq	192.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	ATCC 14456	<i>Solanum lycopersicum</i> (plant tissue)	Italy	1961	QLMU00000000	Contig	3.30	41	Illumina HiSeq	250.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 1465	<i>Solanum lycopersicum</i> (plant tissue)	France	1975	QLMV00000000	Contig	3.33	66	Illumina HiSeq	111.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 1940	<i>Solanum lycopersicum</i> (plant tissue)	Spain	1978	QLMW00000000	Contig	3.30	35	Illumina HiSeq	152.0x	SPAdes v. 3.11

<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 2494	<i>Solanum lycopersicum</i> (plant tissue)	Algeria	1984	QLMY00000000	Contig	3.32	39	Illumina HiSeq	120.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 2500	<i>Solanum lycopersicum</i> (plant tissue)	Algeria	1984	QLMZ00000000	Contig	3.31	332	Illumina HiSeq	139.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 4999	<i>Solanum lycopersicum</i> (plant tissue)	Hungary	1957	RDQW00000000	Contig	3.37	40	Illumina HiSeq	150.0x	Velvet v. 1.2.02; SOAPdenovo v. 2.04
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 5842	<i>Solanum lycopersicum</i> (plant tissue)	Brazil	1993	QLNA00000000	Contig	3.34	127	Illumina HiSeq	95.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 6885	<i>Solanum lycopersicum</i> (plant tissue)	France	2004	QLML00000000	Contig	3.33	25	Illumina HiSeq	139.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 7158	<i>Solanum lycopersicum</i> (plant tissue)	New Zealand	1968	QLNB00000000	Contig	3.29	23	Illumina HiSeq	216.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 7311	<i>Solanum lycopersicum</i> (plant tissue)	Morocco	1989	QLNC00000000	Contig	3.30	46	Illumina HiSeq	142.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 7312	<i>Solanum lycopersicum</i> (plant tissue)	China	1998	QLND00000000	Contig	3.32	43	Illumina HiSeq	216.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 7314	<i>Solanum lycopersicum</i> (plant tissue)	USA	2002	QLMM00000000	Contig	3.27	30	Illumina HiSeq	154.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 7315	<i>Solanum lycopersicum</i> (plant tissue)	USA	1998	QLMN00000000	Contig	3.31	31	Illumina HiSeq	168.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 7316	<i>Solanum lycopersicum</i> (plant tissue)	USA	1998	QLMO00000000	Contig	3.26	29	Illumina HiSeq	138.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 7488	<i>Solanum lycopersicum</i> (plant tissue)	France	2008	QLMP00000000	Contig	3.30	55	Illumina HiSeq	127.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 7568	<i>Solanum lycopersicum</i> (plant tissue)	USA	2000	QLMQ00000000	Contig	3.35	61	Illumina HiSeq	140.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	CFBP 7589	<i>Solanum lycopersicum</i> (plant tissue)	Belgium	1998	QLMR00000000	Contig	3.32	35	Illumina HiSeq	297.0x	SPAdes v. 3.11

<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	NZ1811	<i>Solanum lycopersicum</i> (plant tissue)	New Zealand	1967	QLMS00000000	Contig	3.27	333	Illumina HiSeq	170.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	NZ2541	<i>Solanum lycopersicum</i> (plant tissue)	United Kingdom	1962	QODA00000000	Contig	3.32	228	Illumina HiSeq	193.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	NZ5026	<i>Solanum lycopersicum</i> (plant tissue)	USA	1974	QLMT00000000	Contig	3.28	263	Illumina HiSeq	120.0x	SPAdes v. 3.11
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	1217	<i>Solanum tuberosum</i>	Russia	2006	JAATPM00000000	Scaffold	3.31	227	454	526x	GS De Novo Assembler v. 1.1
<i>C. m. subsp. michiganensis</i>	<i>C. michiganensis</i>	OP3	<i>Solanum lycopersicum</i> (plant tissue)	Chile	2015	WTCS00000000	Contig	3.47	5	Hybrid assembly (MinION; MiSeq)	139x	Unicycler v. 0.4.7
<i>C. michiganensis</i>	<i>C. michiganensis</i>	Z001	?	?	?	PSTW00000000	Scaffold	3.30	39	Illumina HiSeq	112.796x	SPAdes v. 3.7.0
<i>C. michiganensis</i>	<i>C. michiganensis</i>	Z002	?	?	?	PSTV00000000	Contig	3.32	44	Illumina HiSeq	160.65x	SPAdes v. 3.7.0
<i>C. m. subsp. californiensis</i>	<i>C. californiensis</i>	CFBP 8216 ^T	<i>Solanum lycopersicum</i> (seeds)	California, USA	2000	CP040792-CP040794	Complete	3.26	-	PacBio RSII	712.0x	HGAP v. 4
<i>C. michiganensis</i>	<i>C. californiensis</i>	AY1B2 [¥]	<i>Lolium perenne</i> (ryegrass)	Oregon, USA	2013	PSTR00000000	Scaffold	3.34	42	Illumina HiSeq	165.811x	SPAdes v. 3.11.1
<i>C. m. subsp. capsici</i>	<i>C. capsici</i>	PF008 ^T	<i>Capsicum annuum</i> (plant stem)	South Korea	1999	NZ_CP012573	Complete	3.24	-	PacBio	67.41x	SMRT Analysis Portal v. 2.2.0
<i>C. m. subsp. capsici</i>	<i>C. capsici</i>	1101	<i>Capsicum annuum</i> (plant stem)	South Korea	1997	NZ_CP048049	Complete	3.19	-	PacBio RSII	125.04x	HGAP v. 2
<i>C. m. subsp. capsici</i>	<i>C. capsici</i>	1106	<i>Capsicum annuum</i> (plant stem)	South Korea	1997	NZ_CP048047	Complete	3.19	-	PacBio RSII	296.02x	HGAP v. 2
<i>C. m. subsp. capsici</i>	<i>C. capsici</i>	1207	<i>Capsicum annuum</i> (plant stem)	South Korea	1997	CP048045	Complete	3.25	-	PacBio RSII	224.88x	HGAP v. 2
<i>C. michiganensis</i>	<i>C. capsici</i>	CFBP 7576 [¥]	<i>Solanum lycopersicum</i> (seeds)	?	1997	MDJX00000000	Scaffold	3.39	374	Illumina HiSeq	90.0x	SPAdes v. 3.6
<i>C. m. subsp. phaseoli</i>	<i>C. chilensis</i>	LPPA 982 ^T	<i>Phaseolis vulgaris</i> L. (seeds)	Spain	2009	CP040786-CP040787	Complete	3.23	-	PacBio RSII	468.0x	HGAP v. 4

<i>C. m. subsp. michiganensis</i>	<i>C. chilensis</i>	CFBP 8217 [†]	<i>Solanum lycopersicum</i> (seeds)	Chile	2007	CP040795-CP040796	Complete	3.22	-	PacBio RSII	373.0x	HGAP v. 4
<i>C. m. subsp. phaseoli</i>	<i>C. chilensis</i>	VKM Ac-2886	<i>Sambucus racemosa</i> (plant tissue)	Moscow, Russia	2017	JADKRP00000000	Scaffold	3.36	21	Illumina NovaSeq	785x	SPAdes v. 3.14.1
<i>C. michiganensis</i>	<i>C. chilensis</i>	CFBP 7491 ¥	<i>Solanum lycopersicum</i> (seeds)	?	?	QWEB00000000	Contig	3.29	921	Illumina HiSeq	6.0x	Velvet v. 1.2.10 ; SOAPdenovo v. 2.04; SOAPGapCloser v. 1.12
<i>C. m. subsp. insidiosus</i>	<i>C. insidiosus</i>	LMG 3663 [†]	<i>Medicago sativa</i>	USA	1955	MZMO00000000	Contig	3.39	3	PacBio	458.0x	Celera Assembler v. 1
<i>C. m. subsp. insidiosus</i>	<i>C. insidiosus</i>	R1-1	<i>Medicago truncatula</i> (plant stem)	Minnesota, USA	2009	NZ_CP011043	Complete	3.41	-	PacBio RSII SMRT P6-C4, Illumina GAIIx	163.4x	HGAP3 v. 2.2, Pilon v. 1.10
<i>C. m. subsp. insidiosus</i>	<i>C. insidiosus</i>	R1-3	<i>Medicago truncatula</i> (plant stem)	Minnesota, USA	2009	NZ_CP021034	Complete	3.39	-	PacBio RSII	120x	HGAP3 PacBio SMRT portal v. 2.2.0
<i>C. m. subsp. insidiosus</i>	<i>C. insidiosus</i>	ATCC 10253	<i>Medicago sativa</i>	Kansas, USA	1960	NZ_CP021038	Complete	3.24	-	PacBio RSII	117x	HGAP3 SMRT portal v. 2.2.0
<i>C. m. subsp. insidiosus</i>	<i>C. insidiosus</i>	CFBP 1195	<i>Medicago sativa</i>	United Kingdom	1964	QWDZ00000000	Contig	3.20	805	Illumina HiSeq	6.0x	Velvet v. 1.2.10; SOAPdenovo v. 2.04; SOAPGapCloser v. 1.12
<i>C. m. subsp. insidiosus</i>	<i>C. insidiosus</i>	CFBP 6488 φ	<i>Medicago sativa</i>	Czech Republic	1998	QWEA00000000	Contig	3.23	1892	Illumina HiSeq	6.0x	Velvet v. 1.2.10; SOAPdenovo v. 2.04; SOAPGapCloser v. 1.12
<i>C. m. subsp. insidiosus</i>	<i>C. insidiosus</i>	CFBP 2404 [†]	<i>Medicago sativa</i>	USA	1955	RDQV00000000	Scaffold	3.29	73	Illumina HiSeq	200.0x	Velvet v. 1.2.02; SOAPdenovo v. 2.04
<i>C. michiganensis</i>	<i>Clavibacter</i> sp.	CFBP 7494 ¥	<i>Solanum lycopersicum</i> (seeds)	?		MDJW00000000	Contig	3.31	15	Illumina HiSeq	70.0x	SPAdes v. 3.6
<i>C. m. subsp. nebraskensis</i>	<i>C. nebraskensis</i>	NCPBB 2581 [†]	<i>Zea mays</i>	Nebraska, USA	1974	NC_020891	Complete	3.06	-			

<i>C. m. subsp. nebraskensis</i>	<i>C. nebraskensis</i>	HF4	<i>Zea mays</i>	Iowa, USA	2012	NZ_CP033721	Complete	3.06	-	PacBio	90.0x	HGAP v. can v. 1.5
-	<i>C. nebraskensis</i>	A6096	<i>Zea mays</i>	Nebraska, USA	1971	CP040797	Complete	3.07	-	PacBio RSII	289.0x	HGAP v.4
<i>C. m. subsp. nebraskensis</i>	<i>C. nebraskensis</i>	61-1	<i>Zea mays</i>	Iowa, USA	2006	NZ_CP033723	Complete	3.07	-	PacBio	138.0x	Canu v. 1.5
<i>C. m. subsp. nebraskensis</i>	<i>C. nebraskensis</i>	7580	<i>Zea mays</i>	Iowa, USA	2006	NZ_CP033722	Complete	3.07	-	PacBio	236.0x	HGAP v. Can v. 1.5
<i>C. m. subsp. nebraskensis</i>	<i>C. nebraskensis</i>	CFBP 7577 ϕ	<i>Zea mays</i>	?	2011	QWED00000000	Contig	2.98	1272	Illumina HiSeq	6.0x	Velvet v. 1.2.10; SOAPdenovo v. 2.04; SOAPGapCloser v. 1.12
<i>C. m. subsp. nebraskensis</i>	<i>C. nebraskensis</i>	DOAB 395	<i>Zea mays</i>	Manitoba, Canada	2014	LSOE00000000	Contig	3.08	25	Illumina	110x	ABYSS v. 1.5.2
<i>C. m. subsp. nebraskensis</i>	<i>C. nebraskensis</i>	DOAB 397	<i>Zea mays</i>	Manitoba, Canada	2014	LAKL00000000	Contig	3.06	28	Illumina MiSeq	89.0x	ABYSS v. 1.5.2
<i>C. m. subsp. sepedonicus</i>	<i>C. sepedonicus</i>	ATCC 33113 ^T	<i>Solanum tuberosum</i>	Canada	1980	NC_010407	Complete	3.40	-	Sanger AB 3700	8x	PHRAP, Gap4
<i>C. m. subsp. sepedonicus</i>	<i>C. sepedonicus</i>	CFIA-Cs3N	<i>Solanum tuberosum</i>	Canada	?	MZMM00000000	Contig	3.36	5	PacBio	536.0x	Celera Assembler v. 1
<i>C. m. subsp. sepedonicus</i>	<i>C. sepedonicus</i>	CFIA-CsR14	<i>Solanum tuberosum</i>	Canada	?	MZMN00000000	Contig	3.41	6	PacBio	537.0x	Celera Assembler v. 1
<i>C. m. subsp. tessellarius</i>	<i>C. tessellarius</i>	ATCC 33566 ^T	<i>Triticum aestivum</i>	Nebraska, USA	1978	CP040788-CP040791	Complete	3.37	-	PacBio RSII	574.0x	HGAP v.4
<i>C. michiganensis</i>	<i>C. tessellarius</i>	CFBP 3399 ¥	<i>Tulipa sp.</i>	Netherlands	1987	JAHEWV00000000	Contig	3.26	68	Illumina NovaSeq	257.0x	SPAdes v. 3.15.2
<i>C. m. subsp. tessellarius</i>	<i>Clavibacter sp.</i>	DOAB 609 ¥	<i>Triticum aestivum</i> (leaves)	Nebraska, USA	1976	LQXA00000000	Contig	3.30	61	Illumina MiSeq	380.0x	ABYSS v. 1.5.2
<i>C. michiganensis</i>	<i>Clavibacter sp.</i>	CFBP 8017 ¥	<i>Solanum lycopersicum</i> (seeds)	Netherlands	2006	MDJY00000000	Contig	3.17	65	Illumina HiSeq	90.0x	SPAdes v. 3.6
<i>C. zhangzhii</i>	<i>C. zhangzhii</i>	DM1	<i>Hordeum vulgare</i> (seeds)	Australia	2017	NZ_CP061274	Complete	3.10	-	PacBio; Illumina	450.0x	SMRT Link v. v5.1.0; Arrow v. v2.3.3
<i>C. zhangzhii</i>	<i>C. zhangzhii</i>	DM3	<i>Hordeum vulgare</i> (seeds)	Australia	2017	JAFEUE00000000	Contig	3.02	684	Illumina HiSeq	219.8x	Velvet v. 1.2.10
<i>Rathayibacter toxicus</i>	<i>R. toxicus</i>	WAC3373 ‡	<i>Phalaris paradoxa</i>	Australia	1978	NZ_CP013292	Complete	2.35	-	PacBio RSII	99x	HGAP

<i>R. iranicus</i>	<i>R. iranicus</i>	NCCPB 2253 ¶	<i>Triticum aestivum</i> (seed heads)	Iran	1961	NZ_CP028130	Complete	3.44	-	PacBio	156.0x	Celera Assembler v. 2013
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† Indicates type strain of the bacterial cultures.

¶ Strains selected as outgroups for the multi-locus sequencing analysis (MLSA).

‡ Strain selected as an outgroup for the average nucleotide identity (ANI) computation and ANI-based phylogeny test.

ϕ Strains excluded from the core-genome-based phylogenomic study.

¥ strains used for taxonomy delineation assessment based on the digital DNA-DNA hybridization (dDDH) calculations as implemented in the Type Strain Genome Server (TYGS) platform.

- Non applicable.

? Unknown information.