

Dataset S1 - Summary of study isolates and genome sequencing

Study ID	Year	Country	Institution, State	Site	Comments	Reference	ST,Method	WGS Platform	Fold Coverage ^A
BPH0468	2005	Australia	QHP, Queensland	Tissue	Daptomycin NS	Kelley, JAC, 2011	ST239 - MLST	MiSeq	48.60
BPH0475	2003	Australia	RMH, Victoria	Blood Culture	hVISA	Kelley, JAC, 2011	ST239 - MLST	MiSeq	77.27
BPH0488	2003	Australia	RMH, Victoria	Blood Culture	hVISA	Kelley, JAC, 2011	ST239 - MLST	MiSeq	62.35
BPH0491	2005	Australia	STV, Victoria	Blood Culture	hVISA	Kelley, JAC, 2011	ST239 - MLST	MiSeq	52.35
BPH0494	2005	Australia	QHP, Queensland	Blood Culture	hVISA	Kelley, JAC, 2011	ST239 - MLST	MiSeq	43.98
BPH0496	2004	Australia	QHP, Queensland	Tissue	hVISA	Kelley, JAC, 2011	ST239 - MLST	MiSeq	42.07
BPH0499	2005	Australia	MEP, Victoria	Blood Culture	VISA	Kelley, JAC, 2011	ST239 - MLST	MiSeq	46.50
BPH0502	2003	Australia	New South Wales	Tissue	VISA	Kelley, JAC, 2011	ST239 - MLST	MiSeq	54.56
BPH0503	2003	Australia	Victoria	Blood Culture	VISA	Kelley, JAC, 2011	ST239 - MLST	MiSeq	52.96
BPH0508	2006	Australia	QHP, Queensland	Blood Culture	VISA	Kelley, JAC, 2011	ST239 - MLST	MiSeq	53.75
BPH0509	2005	Australia	QHP, Queensland	Sputum	VISA	Kelley, JAC, 2011	ST239 - MLST	MiSeq	37.73
BPH0510	2005	Australia	MAH, New South Wales	Blood Culture	VISA	Kelley, JAC, 2011	ST239 - MLST	MiSeq	70.71
BPH2002	2002	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	42.26
BPH2003	2001	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	55.33
BPH2004	2001	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	47.48
BPH2005	1999	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - PCR	MiSeq	63.90
BPH2006	2001	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	47.61
BPH2007	2001	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	57.89
BPH2008	2000	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	75.26
BPH2009	2000	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	62.32
BPH2010	2001	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	41.55
BPH2011	2001	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	36.01
BPH2012	1999	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - PCR	MiSeq	61.00
BPH2013	2004	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	40.22
BPH2014	1999	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - PCR	MiSeq	49.19
BPH2015	2004	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	45.21
BPH2016	2005	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	66.54
BPH2017	2005	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	40.46
BPH2018	2004	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	69.07
BPH2019	2005	Australia	MEH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	68.19
BPH2021	2004	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	51.29
BPH2022	2005	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	47.83
BPH2023	2006	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	38.39
BPH2024	2007	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	50.02
BPH2025	2008	Australia	AUH, Victoria	Blood Culture		Holmes, JID, 2011	ST239 - PCR	MiSeq	47.44
BPH2026	2007	Australia	MMC, Victoria	Blood Culture		Holmes, JID, 2011	ST239 - PCR	MiSeq	40.85
BPH2028	2007	Australia	MMC, Victoria	Blood Culture		Holmes, JID, 2011	ST239 - PCR	MiSeq	57.35
BPH2029	2009	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	59.73
BPH2031	2008	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	47.72
BPH2032	1998	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - PCR	MiSeq	51.32
BPH2033	2008	Australia	AUH, Victoria	Blood Culture		Holmes, JID, 2011	ST239 - PCR	MiSeq	72.27

BPH2034	2008	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - MLST	MiSeq	68.16
BPH2035	2008	Australia	AUH, Victoria	Blood Culture		Holmes, JID, 2011	ST239 - PCR	MiSeq	77.30
BPH2037	2008	Australia	AUH, Victoria	Blood Culture		MSSA Holmes, JID, 2011	ST239 - PCR	MiSeq	45.56
BPH2045	2007	Australia	WEH, New South Wales	Blood Culture		MSSA Holmes, JID, 2011	ST239 - PCR	MiSeq	40.45
BPH2054	1980	Australia	ALH, Victoria			This Study	ST239 - PCR	MiSeq	58.51
BPH2055	1980	Australia	ALH, Victoria			This Study	ST239 - PCR	MiSeq	48.64
BPH2056	1981	Australia	ALH, Victoria			This Study	ST239 - PCR	MiSeq	71.83
BPH2057	1981	Australia	ALH, Victoria			This Study	ST239 - PCR	MiSeq	43.96
BPH2059	1981	Australia	ALH, Victoria		Freeze dried in 1981	This Study	ST239 - PCR	MiSeq	50.86
BPH2068	2009	Australia	AUH, Victoria			This Study	ST239 - MLST	MiSeq	49.90
BPH2070	1998	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - PCR	MiSeq	46.49
BPH2071	1998	Australia	AUH, Victoria	Blood Culture		This Study	ST239 - PCR	MiSeq	53.01
BPH2072	1982	Australia	RNS, New South Wales	Tissue		This Study *	ST239 - PCR	MiSeq	44.29
BPH2073	1982	Australia	RNS, New South Wales	Tissue		This Study *	ST239 - PCR	MiSeq	52.52
BPH2075	1982	Australia	RNS, New South Wales	Tissue		This Study *	ST239 - PCR	MiSeq	48.92
BPH2077	1982	Australia	RNS, New South Wales	Tissue		This Study *	ST239 - PCR	MiSeq	52.00
BPH2078	1982	Australia	RPA, New South Wales			This Study *	ST239 - PCR	MiSeq	51.97
BPH2079	1982	Australia	RPA, New South Wales			This Study *	ST239 - PCR	MiSeq	47.73
BPH2080	1982	Australia	RPA, New South Wales			This Study *	ST239 - PCR	MiSeq	58.06
BPH2081	1982	Australia	RPA, New South Wales			This Study *	ST239 - PCR	MiSeq	73.30
BPH2082	1982	Australia	RPA, New South Wales			This Study *	ST239 - PCR	MiSeq	47.14
BPH2083	1982	Australia	RPA, New South Wales			This Study *	ST239 - PCR	MiSeq	43.36
BPH2084	1982	Australia	RPA, New South Wales			This Study *	ST239 - PCR	MiSeq	68.88
BPH2085	1982	Australia	RPA, New South Wales			This Study *	ST239 - PCR	MiSeq	37.01
BPH2086	1982	Australia	RPA, New South Wales			This Study *	ST239 - PCR	MiSeq	50.32
BPH2088	1982	Australia	RPA, New South Wales			This Study *	ST239 - PCR	MiSeq	57.01
BPH2090	2012	Australia	AUH, Victoria			MSSA This Study	ST239 - PCR	MiSeq	62.75
BPH2094	1998	Australia	LPH, New South Wales	Blood Culture		This Study **	ST239 - WGS	Ion Torrent PGM	169.55
BPH2095	2003	Australia	LPH, New South Wales	Blood Culture		This Study **	ST239 - WGS	Ion Torrent PGM	84.28
BPH2096	2005	Australia	LPH, New South Wales	Blood Culture		This Study **	ST239 - WGS	Ion Torrent PGM	86.54
BPH2097	2007	Australia	LPH, New South Wales	Blood Culture		This Study **	ST239 - WGS	Ion Torrent PGM	76.54
BPH2098	2007	Australia	LPH, New South Wales	Blood Culture		This Study **	ST239 - WGS	Ion Torrent PGM	96.24
BPH2099	2007	Australia	LPH, New South Wales	Blood Culture		This Study **	ST239 - WGS	Ion Torrent PGM	206.32
JKD6000	2002	Australia	MMC, Victoria	Blood Culture	VSSA variant of JKD6001	Howden, AAC, 2006	ST239 - WGS	Genome Analyser Ix	129.45
JKD6001	2003	Australia	MMC, Victoria	Blood Culture	VISA variant of JKD6000	Howden, AAC, 2006	ST239 - WGS	Genome Analyser Ix	186.63
JKD6004	2002	Australia	RBH, Queensland	Blood Culture	hVISA variant of JKD6005	Howden, AAC, 2006	ST239 - WGS	Genome Analyser Ix	177.92
JKD6005	2002	Australia	RBH, Queensland	Blood Culture	VISA variant of JKD6004	Howden, AAC, 2006	ST239 - WGS	Genome Analyser Ix	200.37
JKD6007	2002	Australia	RBH, Queensland	Blood Culture	Morphological variant of JKD6004	This Study	ST239 - PCR	MiSeq	44.63
JKD6008	2003	New Zealand		Blood Culture	VSSA variant of JKD6009	Howden, AAC, 2006	ST239 - WGS	Genome Analyser Ix	51.08
JKD6009	2003	New Zealand		Tissue	VISA variant of JKD6008	Howden, AAC, 2006	ST239 - WGS	Genome Analyser Ix	236.32
JKD6021	2001	Australia	AUH, Victoria	Blood Culture	VSSA variant of JKD6023	Howden, AAC, 2006	ST239 - WGS	Genome Analyser Ix	95.70
JKD6022	2001	Australia	AUH, Victoria	Blood Culture	Morphological variant of JKD6023	This Study	ST239 - PCR	MiSeq	37.57
JKD6023	2001	Australia	AUH, Victoria	Blood Culture	VISA variant of JKD6021	Howden, AAC, 2006	ST239 - WGS	Genome Analyser Ix	144.36
JKD6051	2003	Australia	RBH, Queensland	Blood Culture	VSSA variant of JKD6052	Howden, AAC, 2006	ST239 - WGS	Genome Analyser Ix	134.08

JKD6052	2004	Australia	RBH, Queensland	Blood Culture	hVISA variant of JKD6051	Howden, AAC, 2006	ST239 - WGS	Genome Analyser IIx	146.30
JKD6121	2005	Australia	AUH, Victoria	Blood Culture	SCV	This Study	ST239 - WGS	Genome Analyser IIx	181.09
BPH0365	1996	Turkey				Harris, Science, 2010	ST239 - PCR	MiSeq	56.49
BPH0366	1996	Hungary				Harris, Science, 2010	ST239 - PCR	MiSeq	65.53
2A8	2001	Czech Republic			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	34.58
AGT1	1997	Argentina			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	30.10
AGT9	1997	Argentina			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	29.79
AGT67	1997	Argentina			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	34.03
AGT120	1998	Argentina			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	29.20
BRA2	1997	Brazil			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	31.51
BZ48	1997	Brazil			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	28.05
CHI59	1998	China			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	27.00
CHI61	1998	China			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	26.54
CHL151	1998	Chile			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	28.38
DEN907	2001	Denmark			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	31.86
HGSA142	2003	Portugal			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	32.52
HSJ216	1997	Portugal			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	25.32
ICP5011	1993	Portugal			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	38.78
ICP5014	1993	Portugal			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	41.82
LHH1	1994	United States			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	35.78
S2	2006	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	29.05
S7	2006	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	54.89
S25	2006	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	38.74
S26	2006	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	46.72
S38	2006	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	29.05
S39	2006	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	31.59
S40	2006	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	31.59
S71	2007	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	37.01
S78	2007	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	31.34
S81	2007	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	30.54
S87	2007	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	27.25
S93	2007	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	26.57
S102	2007	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	26.24
S106	2007	Thailand			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	34.13
TUR1	1996	Turkey			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	25.57
TW20	2003	United Kingdom			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	-
URU34	1997	Uruguay			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	33.47
URU110	1998	Uruguay			WGS Reads Only	Harris, Science, 2010	ST239 - WGS	Genome Analyser IIx	27.33

* Strains provided courtesy of author NF; **Strains and WGS provided courtesy of authors SOJ and SJH; ^AMapped to TW20; Manufacturers of sequencing platforms used: MiSeq (Illumina), Ion Torrent PGM (Life Technologies), Genome Analyser IIx (Illumina); Abbreviations: MSSA = methicillin-resistant S. aureus, NS = non susceptible, SCV = small colony variant, VISA = vancomycin-intermediate S.aureus, hVISA = heterogeneous VISA, WGS = Whole Genome Sequencing