

Table S1. Metadata for *K. pneumoniae* ST20 genomes used for phylogenetic analysis. *NA*: not applicable (i.e., no metadata provided).

Sample	ENA study accession	Host	Isolation source	Location	Collection date
PBIO3459	PRJEB55904	human	blood	Germany	2021
BioSample	GenBank assembly accession	Host	Isolation source	Location	Collection date
SAMD00129645	GCA_004313545.1	human	blood	Japan	2014
SAMD00196002	GCA_015138775.1	human	NA	Japan	2018
SAMEA104208303	GCA_022250695.1	NA	NA	NA	NA
SAMEA104208310	GCA_022250615.1	NA	NA	NA	NA
SAMEA104208313	GCA_022250575.1	NA	NA	NA	NA
SAMEA104208315	GCA_022250535.1	NA	NA	NA	NA
SAMEA104208437	GCA_022248755.1	NA	NA	NA	NA
SAMEA104567656	GCA_902161435.1	human	faecal	United Kingdom	2018
SAMEA104567807	GCA_900774905.1	NA	NA	NA	NA
SAMEA104590273	GCA_022255295.1	human	swab	Cambodia	2013
SAMEA2073120	GCA_022244835.1	human	ET tip	Nepal	2012
SAMEA2073121	GCA_022244795.1	human	ET secretion	Nepal	2012
SAMEA2073310	GCA_022244545.1	human	urine	Nepal	2012
SAMEA2273552	GCA_900084805.1	human	blood	United Kingdom	2002
SAMEA2602992	GCA_000823085.1	NA	NA	NA	NA
SAMEA3356962	GCA_020149785.1	NA	NA	NA	NA
SAMEA3357023	GCA_904863365.1	NA	NA	NA	NA
SAMEA3357158	GCA_904863405.1	NA	NA	NA	NA
SAMEA3357253	GCA_904866335.1	NA	NA	NA	NA
SAMEA3357421	GCA_904866295.1	NA	NA	NA	NA
SAMEA3500082	GCA_900510685.1	human	swab	Slovakia	2014
SAMEA3500088	GCA_900510785.1	human	urine	Slovakia	2014
SAMEA3512056	GCA_900512395.1	human	wound secretion	Germany	2014
SAMEA3515082	GCA_900513115.1	human	blood	Italy	2013
SAMEA3515128	GCA_900515275.1	human	blood	Italy	2013
SAMEA3515130	GCA_900514195.1	human	urine	Italy	2013
SAMEA3515150	GCA_900514815.1	human	blood	Italy	2014
SAMEA3531574	GCA_900172565.1	other	sewage	United Kingdom	2014
SAMEA3538565	GCA_900514055.1	human	urine	Italy	2013
SAMEA3538820	GCA_022291755.1	NA	NA	NA	NA
SAMEA3649532	GCA_022290895.1	NA	NA	NA	NA
SAMEA3649558	GCA_900517475.1	human	blood	Spain	2013
SAMEA3649665	GCA_900500785.1	human	urine	Greece	2014
SAMEA3649680	GCA_900501315.1	human	puncture fluids	Greece	2013
SAMEA3727631	GCA_900506635.1	human	urine	Belgium	2014
SAMEA3729705	GCA_900507805.1	human	lower respiratory tract secretion	Turkey	2013
SAMEA3729744	GCA_900508505.1	human	urine	Turkey	2014
SAMEA3886655	GCA_022247145.1	NA	NA	NA	NA
SAMEA3886656	GCA_022247045.1	NA	NA	NA	NA

SAMEA4362606	GCA_900173305.1	human	feces	United Kingdom	2015
SAMEA4362608	GCA_900173335.1	human	feces	United Kingdom	2015
SAMEA4362609	GCA_900173365.1	human	feces	United Kingdom	2015
SAMEA4362668	GCA_900173905.1	human	feces	United Kingdom	2015
SAMEA4531897	GCA_022298775.1	NA	NA	NA	NA
SAMEA4531985	GCA_022297115.1	NA	NA	NA	NA
SAMEA4532230	GCA_022292975.1	NA	NA	NA	NA
SAMEA4807837	GCA_900498415.1	human	NA	Germany	2014
SAMEA4807844	GCA_900498585.1	human	NA	Germany	2014
SAMEA4807846	GCA_900498385.1	human	NA	Germany	2014
SAMEA4807847	GCA_900498595.1	human	NA	Germany	2014
SAMEA4807849	GCA_900498475.1	human	NA	Germany	2014
SAMEA4807853	GCA_900498405.1	human	NA	Germany	2014
SAMEA5048777	GCA_022200005.1	NA	NA	NA	NA
SAMEA5049787	GCA_022183305.1	NA	NA	NA	NA
SAMEA5050265	GCA_021855905.1	NA	NA	NA	NA
SAMEA56276668	GCA_022236885.1	human	NA	Ireland	2016
SAMEA56282668	GCA_022236625.1	human	NA	Ireland	2016
SAMEA56283418	GCA_022236435.1	human	NA	Ireland	2016
SAMEA6657263	GCA_021972375.1	human	urine	Denmark	2018
SAMEA6657273	GCA_021972355.1	human	urine	Denmark	2018
SAMEA6658658	GCA_022175505.1	human	clinical	Cambodia	2016
SAMEA7746285	GCA_916163495.1	human	urine	Netherlands	2010
SAMEA7773563	GCA_021979815.1	human	feces	Norway	2015
SAMEA7773566	GCA_021979795.1	human	feces	Norway	2015
SAMEA7773587	GCA_021979515.1	human	feces	Norway	2015
SAMEA7773609	GCA_021979135.1	human	feces	Norway	2015
SAMEA7773665	GCA_021978415.1	human	feces	Norway	2015
SAMEA7773750	GCA_021977475.1	human	feces	Norway	2015
SAMEA7773776	GCA_021977175.1	human	feces	Norway	2015
SAMEA7773800	GCA_021976895.1	human	feces	Norway	2015
SAMEA7773848	GCA_021976355.1	human	feces	Norway	2015
SAMEA7773889	GCA_021975675.1	human	feces	Norway	2015
SAMEA7773911	GCA_021975395.1	human	feces	Norway	2015
SAMEA7773923	GCA_021975255.1	human	feces	Norway	2015
SAMEA7773931	GCA_021975155.1	human	feces	Norway	2015
SAMEA7773986	GCA_021974415.1	human	feces	Norway	2021
SAMEA7774006	GCA_021974155.1	human	feces	Norway	2015
SAMEA8217956	GCA_021820075.1	human	clinical	Germany	2018
SAMEA8581355	GCA_021895695.1	human	NA	Pakistan	2016
SAMEA882006	GCA_022260635.1	human	urine	Australia	2002
SAMEA882046	GCA_022260575.1	human	urine	Australia	2002
SAMEA882199	GCA_022259635.1	human	respiratory	Viet Nam	2003
SAMEA88384168	GCA_022235845.1	human	NA	Ireland	2017
SAMEA8948220	GCA_021924145.1	human	blood	Norway	2005
SAMEA8948260	GCA_021921165.1	human	blood	Norway	2005
SAMEA8948265	GCA_021921105.1	human	blood	Norway	2005
SAMEA8948266	GCA_021921125.1	human	blood	Norway	2005
SAMEA8948330	GCA_021925305.1	human	blood	Norway	2001

SAMEA8948347	GCA_021925005.1	human	blood	Norway	2001
SAMEA8948367	GCA_021924805.1	human	blood	Norway	2001
SAMEA8948511	GCA_021919465.1	human	blood	Norway	2009
SAMEA8948530	GCA_021919205.1	human	blood	Norway	2009
SAMEA8948641	GCA_021917925.1	human	urine	Norway	2012
SAMEA8948645	GCA_021917825.1	human	urine	Norway	2012
SAMEA8948731	GCA_021916865.1	human	blood	Norway	2015
SAMEA8948745	GCA_021929555.1	human	blood	Norway	2015
SAMEA8948747	GCA_021929515.1	human	blood	Norway	2015
SAMEA8948752	GCA_021929415.1	human	blood	Norway	2015
SAMEA8948778	GCA_021929135.1	human	blood	Norway	2015
SAMEA8948798	GCA_021928935.1	human	blood	Norway	2015
SAMEA8948817	GCA_021928715.1	human	blood	Norway	2015
SAMEA8948824	GCA_021926005.1	human	blood	Norway	2015
SAMEA8948838	GCA_021928375.1	human	blood	Norway	2015
SAMEA8948853	GCA_021928155.1	human	blood	Norway	2015
SAMEA8948855	GCA_021928135.1	human	blood	Norway	2015
SAMEA8948861	GCA_021928055.1	human	blood	Norway	2015
SAMEA8948862	GCA_021925945.1	human	blood	Norway	2015
SAMEA8948906	GCA_021925825.1	human	blood	Norway	2015
SAMEA8948921	GCA_021927205.1	human	blood	Norway	2015
SAMN02927722	GCA_022304375.1	human	NA	Canada	2009
SAMN02927817	GCA_022301875.1	human	NA	USA	2006
SAMN03002380	GCA_002895645.2	human	clinical	Netherlands	2012
SAMN03737944	GCA_001038365.1	human	urine	USA	2013
SAMN03853256	GCA_022266615.1	other	retail chicken	USA	2012
SAMN04357353	GCA_022314735.1	human	blood	United Kingdom	2009
SAMN04357362	GCA_022314635.1	human	blood	United Kingdom	2010
SAMN04357385	GCA_022313335.1	human	blood	United Kingdom	2010
SAMN04357387	GCA_022313355.1	human	blood	United Kingdom	2010
SAMN05770822	GCA_022266285.1	human	NA	Singapore	2014
SAMN05770868	GCA_022266015.1	human	NA	Singapore	2015
SAMN05956096	GCA_001902815.4	human	respiratory	USA	2013
SAMN05960875	GCA_002186545.1	human	blood	Nigeria	2009
SAMN06112183	GCA_022273395.1	human	liver abscess	Singapore	NA
SAMN06437422	GCA_022079125.1	human	blood	USA	2012
SAMN06437474	GCA_022089065.1	human	respiratory	USA	2012
SAMN06437481	GCA_022089205.1	human	urine	USA	2012
SAMN06437509	GCA_022091135.1	human	abscess	USA	2012
SAMN06438484	GCA_022069565.1	human	drain	USA	2014
SAMN06546423	GCA_022300095.1	human	sputum	USA	2016
SAMN06629650	GCA_002855175.1	human	NA	Colombia	2010
SAMN06629698	GCA_002853815.1	human	NA	Colombia	2002
SAMN07310304	GCA_019426495.1	NA	hand wash basin	Germany	2004
SAMN07525395	GCA_022286655.1	human	drain	USA	2017
SAMN07525412	GCA_022283905.1	human	blood	USA	2017
SAMN07525424	GCA_022284285.1	human	urine	USA	2017
SAMN07525438	GCA_022285115.1	human	organ	USA	2017
SAMN07525440	GCA_022285065.1	human	urine	USA	2017

SAMN08148173	GCA_014902355.1	human	NA	USA	NA
SAMN08148239	GCA_014902985.1	human	NA	USA	NA
SAMN08148240	GCA_014902835.1	human	NA	USA	NA
SAMN08148299	GCA_014902715.1	human	NA	USA	NA
SAMN08382725	GCA_022322845.1	human	blood	Singapore	2012
SAMN08382734	GCA_022323505.1	human	blood	Singapore	2012
SAMN08382744	GCA_022323405.1	human	blood	Singapore	2013
SAMN08382755	GCA_022323045.1	human	blood	Singapore	2011
SAMN08382758	GCA_022323105.1	human	blood	Singapore	2011
SAMN09266884	GCA_003195615.1	human	blood	USA	2017
SAMN09266899	GCA_003196655.1	human	blood	USA	2017
SAMN09475209	GCA_019679205.1	other	NA	Germany	2017
SAMN09981252	GCA_008121015.1	human	stool	USA	NA
SAMN09981274	GCA_008082375.1	human	stool	USA	NA
SAMN10058847	GCA_022270315.1	human	blood	Singapore	2015
SAMN10086811	GCA_014840295.1	human	wound	Pakistan	2016
SAMN10241289	GCA_003861085.1	human	patient fluids	USA	2017
SAMN10522466	GCA_004137665.1	NA	feces	China	2015
SAMN11579532	GCA_018108585.1	human	wound swab	Malaysia	2016
SAMN11979504	GCA_022174085.1	human	rectal	Singapore	2014
SAMN11979506	GCA_022173985.1	human	rectal swab	Singapore	2013
SAMN11979507	GCA_022173945.1	human	sputum	Singapore	2013
SAMN11979509	GCA_022173405.1	human	rectal swab	Singapore	2014
SAMN11979511	GCA_022173205.1	human	stool/rectal swab	Singapore	2014
SAMN11979515	GCA_022173085.1	human	stool/rectal swab	Singapore	2014
SAMN12109314	GCA_016617225.1	NA	blood	NA	NA
SAMN12109315	GCA_016617195.1	NA	blood	NA	NA
SAMN12109321	GCA_016617095.1	NA	blood	NA	NA
SAMN12109322	GCA_016617015.1	NA	blood	NA	NA
SAMN12109325	GCA_016616945.1	NA	blood	NA	NA
SAMN12109330	GCA_016616935.1	NA	blood	NA	NA
SAMN12109374	GCA_016615935.1	NA	blood	NA	NA
SAMN12109375	GCA_016615895.1	NA	blood	NA	NA
SAMN12109462	GCA_016614335.1	NA	blood	NA	NA
SAMN12109464	GCA_016614245.1	NA	blood	NA	NA
SAMN12212120	GCA_020115175.1	human	blood	Switzerland	2017
SAMN12212290	GCA_020116535.1	human	urine	Switzerland	2017
SAMN12250575	GCA_010598785.1	human	lung	USA	2015
SAMN12250797	GCA_010590075.1	human	lung	USA	2016
SAMN12250803	GCA_010597245.1	human	lung	USA	2016
SAMN12289391	GCA_022132845.1	human	NA	Australia	2009
SAMN13153767	GCA_009661155.1	human	blood	Russia	2018
SAMN13301642	GCA_016635585.1	human	blood	Australia	2015
SAMN13829629	GCA_022054415.1	human	rectal swab	Qatar	2018
SAMN13915673	GCA_016643405.1	human	NA	Portugal	NA
SAMN14008692	GCA_018137325.1	human	NA	Mexico	2000
SAMN14008695	GCA_018137275.1	human	NA	Mexico	2000
SAMN14379877	GCA_014654945.1	human	NA	China	2019
SAMN14609909	GCA_012968365.1	human	blood	South Korea	2016

SAMN14851502	GCA_021842725.1	human	swab	Singapore	2013
SAMN14967546	GCA_014837535.1	human	clinical	USA	2019
SAMN14967661	GCA_014833295.1	human	NA	USA	2017
SAMN15148642	GCA_013736155.1	other	wastewater influent	United Kingdom	2017
SAMN15148738	GCA_014103065.1	other	wastewater influent	United Kingdom	2017
SAMN15374758	GCA_017922235.1	human	NA	Malawi	2013
SAMN15831847	GCA_014289915.1	human	NA	China	2008
SAMN15832080	GCA_014283815.1	human	NA	China	2016
SAMN15868508	GCA_022164965.1	human	urine	USA	2016
SAMN16125015	GCA_015356355.1	other	sewage	NA	2019
SAMN16357453	GCA_016903255.1	human	NA	USA	NA
SAMN16427127	GCA_014982705.1	human	stool	Spain	2019
SAMN16614903	GCA_021823485.1	human	bone	USA	2019
SAMN16823204	GCA_022041575.1	human	NA	USA	2017
SAMN16823209	GCA_022041735.2	human	rectal	USA	2017
SAMN16824574	GCA_022028395.1	human	NA	Singapore	2015
SAMN16824660	GCA_022027115.1	human	NA	Singapore	2016
SAMN16842674	GCA_022038895.1	human	trachael aspirate	USA	2019
SAMN16980962	GCA_022033855.2	human	NA	USA	2017
SAMN17371801	GCA_018439785.1	human	stool/rectal swab	Germany	2016
SAMN17766485	GCA_022789545.1	other	marine environment	Norway	2019
SAMN17766489	GCA_022789425.1	other	marine environment	Norway	2019
SAMN17766496	GCA_022789315.1	other	marine environment	Norway	2019
SAMN17766503	GCA_022789245.1	other	marine environment	Norway	2020
SAMN17766513	GCA_022789045.1	other	marine environment	Norway	2020
SAMN17766514	GCA_022789005.1	other	marine environment	Norway	2020
SAMN18822993	GCA_021973675.1	human	rectal swab	USA	2021
SAMN18874704	GCA_019930085.1	human	wound	Afghanistan	2013
SAMN18978597	GCA_022551475.1	human	rectal	USA	2017
SAMN19016749	GCA_021953385.1	human	respiratory	USA	2017
SAMN19374585	GCA_018789905.1	other	water	South Africa	2018
SAMN19658408	GCA_021936275.1	human	blood	Canada	2008
SAMN19797021	GCA_019053895.1	human	sputum	China	2016
SAMN19797042	GCA_019053355.1	human	blood	China	2018
SAMN19797043	GCA_019053395.1	human	urine	China	2018
SAMN19855090	GCA_022991025.1	human	blood	USA	2018
SAMN19855117	GCA_022999365.1	human	blood	USA	2018
SAMN19855118	GCA_022984585.1	human	blood	USA	2018
SAMN19855546	GCA_022998685.1	human	stool	USA	2018
SAMN20033658	GCA_021933475.1	human	swab	Australia	2020
SAMN20104173	GCA_021935855.2	human	toe	USA	2021
SAMN20110663	GCA_022012095.1	human	drainage	Germany	2016
SAMN20524809	GCA_023467275.1	human	NA	Singapore	NA
SAMN20966795	GCA_023037515.1	NA	NA	Singapore	NA
SAMN20967060	GCA_023039755.1	NA	NA	Singapore	NA
SAMN20967074	GCA_023465775.1	NA	NA	Singapore	NA
SAMN20967113	GCA_023036735.1	NA	NA	Singapore	NA
SAMN20967405	GCA_023041155.1	NA	NA	Singapore	NA
SAMN21922876	GCA_021502945.1	human	rectal swab	Pakistan	2016

SAMN22045166	GCA_021904335.1	human	NA	USA	2021
SAMN23040723	GCA_023025805.1	human	blood	China	2018
SAMN23224736	GCA_022861205.1	human	NA	China	2018
SAMN23521389	GCA_021897075.1	human	NA	USA	2021
SAMN24009778	GCA_021262305.1	human	blood	USA	NA
SAMN24009794	GCA_021262085.1	human	blood	USA	NA
SAMN24020413	GCA_022116155.1	human	NA	United Kingdom	2016
SAMN24020516	GCA_022106455.1	human	NA	United Kingdom	2016
SAMN24020995	GCA_022146665.1	human	NA	United Kingdom	2016
SAMN26101548	GCA_022431305.1	other	milk	USA	2020
SAMN26366690	GCA_022499505.1	human	urine	Australia	2001
SAMN26366696	GCA_022498265.1	human	blood	Australia	2001
SAMN26366712	GCA_022499325.1	human	urine	Australia	2001
SAMN26366729	GCA_022500005.1	human	urine	Australia	2002
SAMN26368956	GCA_023033685.1	human	urine	Australia	2020
SAMN26369082	GCA_023028205.1	human	sputum	Australia	2020
SAMN26369217	GCA_023030245.1	human	urine	Australia	2020
SAMN26369305	GCA_023033635.1	human	blood	Australia	2020
SAMN26417635	GCA_022470475.1	human	sputum	USA	2021
SAMN26976180	GCA_023206495.1	human	rectal swab	USA	2017
SAMN26976209	GCA_023311735.1	human	rectal swab	USA	2017
SAMN26976276	GCA_023311615.1	human	rectal swab	USA	2017
SAMN26976323	GCA_023207175.1	human	rectal swab	USA	2018
SAMN26976365	GCA_023207895.1	human	rectal swab	USA	2018
SAMN26976393	GCA_023462755.1	human	rectal swab	USA	2018
SAMN26976425	GCA_023314275.1	human	rectal swab	USA	2018
SAMN28097314	GCA_023829615.1	human	sputum	Thailand	2017
SAMN28743183	GCA_023584565.1	human	rectal swab	Australia	2019