

**Supplementary Table S4.** Basic assembly statistics for different assemblies of monocultures and mixed culture of *E. coli* and *K. pneumoniae* isolates. The mixed culture was obtained from co-culturing of *E. coli* 4 and *K. pneumoniae* 5 isolates. Average (SD)\* values for MinION assembly were calculated after regarding the *E. coli* 3 and *K. pneumoniae* 1 isolate statistics as an outlier and discarding the corresponding data.

		Number of contigs	Largest contig (bp)	Total length (bp)	GC (%)	N50 (bp)
Illumina (Unicycler)	<i>E. coli</i> 1	100	765,416	5,052,925	50.57	254,457
	<i>E. coli</i> 2	68	761,444	5,077,031	50.58	281,982
	<i>E. coli</i> 3	115	620,652	5,066,581	50.79	261,702
	<i>E. coli</i> 4	269	323,518	5,735,389	50.42	102,833
	Average (SD)	138 (90)	617,758 (207,392)	5,232,982 (335,084)	51 (1)	225,244 (82,435)
MinION (Flye)	<i>E. coli</i> 1	50	570,493	5,073,148	50.49	222,053
	<i>E. coli</i> 2	113	128,944	4,225,573	50.37	47,034
	<i>E. coli</i> 3	5	17,872	49,176	39.56	16,045
	<i>E. coli</i> 4	27	2,970,614	6,134,097	50.77	1,087,804
	Average (SD)	49 (47)	921,981 (1,386,454)	3,870,499 (2,664,510)	48 (6)	343,234 (504,598)
Hybrid (Unicycler)	Average * (SD) *	64 (45)	1,223,351 (1,529,196)	5,144,273 (956,248)	51 (1)	452,297 (557,279)
	<i>E. coli</i> 1	30	1,929,634	5,121,243	50.61	1,392,053
	<i>E. coli</i> 2	25	1,352,860	5,102,867	50.59	1,296,669
	<i>E. coli</i> 3	82	636,775	5,088,863	50.79	336,032
	<i>E. coli</i> 4	62	275,7897	5,956,168	50.51	996,338
Illumina (Unicycler)	Average (SD)	50 (28)	1,669,292 (897,972)	5,317,286 (426,129)	51 (1)	1,005,273 (476,961)
	<i>K. pneumoniae</i> 1	82	653,447	5,374,307	57.35	251,480
	<i>K. pneumoniae</i> 2	57	815,437	5,465,685	57.10	348,149
	<i>K. pneumoniae</i> 3	84	479,668	5,797,728	56.67	200,979
	<i>K. pneumoniae</i> 4	88	862,848	5,737,695	56.82	350,054
MinION (Flye)	<i>K. pneumoniae</i> 5	77	927,949	5,510,849	57.64	311,143
	Average (SD)	78 (13)	747,870 (181,013)	5,577,253 (181,931)	58 (1)	247,095 (138,114)
	<i>K. pneumoniae</i> 1	30	53,004	715,682	55.53	33,058
	<i>K. pneumoniae</i> 2	3	5,315,630	5,519,519	57.09	5,315,630
	<i>K. pneumoniae</i> 3	9	3,308,867	5,906,847	56.61	3,308,867
Hybrid (Unicycler)	<i>K. pneumoniae</i> 4	54	2,675,543	5,907,851	56.73	1,219,455
	<i>K. pneumoniae</i> 5	78	326,735	5,424,990	57.67	103,491
	Average (SD)	35 (32)	2,335,956 (2,190,273)	4,694,978 (2,235,357)	57 (1)	1,996,101 (2,279,327)
	Average * (SD) *	36 (37)	2,906,694 (2,055,427)	5,689,802 (254,150)	58 (1)	2,486,861 (2,306,831)
	<i>K. pneumoniae</i> 1	43	866,749	5,411,988	57.33	499,601
Illumina (Unicycler)	<i>K. pneumoniae</i> 2	4	5,321,058	5,530,587	57.06	5,321,058
	<i>K. pneumoniae</i> 3	8	5,319,674	5,907,459	56.60	5,319,674
	<i>K. pneumoniae</i> 4	14	5,308,446	5,832,296	56.75	5,308,446
	<i>K. pneumoniae</i> 5	28	2,952,457	5,558,222	57.59	2,952,457
	Average	20 (17)	3,953,677 (2,006,405)	5,648,111 (211,443)	58 (1)	3,880,248 (2,149,256)
Illumina (Unicycler)	Mix culture	371	927,949	11,193,506	53.97	147,235
MinION (Flye)	Mix culture	120	1,141,119	11,827,293	53.99	344,695
Hybrid (Unicycler)	Mix culture	117	5,202,502	11,495,693	53.93	1,245,846