

**Table S5.** Summary of mutational and recombination changes in the 3 ExPEC genomes

Lineage	Mutational SNPs <sup>a</sup>							Recombination events <sup>b</sup>							
	NC	NS	S	ins	del	indel	total	No. events	NC	NS	S	ins	del	indel	total
UTI89	44	149	86	11	10	-	300	4	15/1	9/1	48/1	0	0	-	72/3
AS <sup>c</sup>	25	74	76	6	14	-	195	3	8/2	44/10	80/12	1	1/1	-	134/25
S88 <sup>d</sup>	40/1(4)	123/2	71/2	8/2(1)	19/2(1)	-	261/9(6)	8	263/33(1)	468/56(1)	1442/193(1)	0/3	1	-	2174/285(3)
APEC 01 <sup>d</sup>	58/6	149/4(4)	95/1	40/5(1)	21/2	-	363/18(5)	13	102/41(15)	34/14(2)	81/30	33/10	5	-	255/95(17)
UTI89/AS <sup>c</sup>	3	3	3	-	-	2	11	11	39	298	739	-	-	2	1078
APEC01/S88 <sup>e</sup>	0	0	0	-	-	2	2	1	323	0	0	-	-	1	324
Total <sup>c</sup>	172/7(4)	498/6(4)	331/3	65/7(2)	64/4(1)	4	1134/27(11)	40	750/77(16)	853/81(3)	2390/236(1)	34/13	7/1	3	4037/408(20)

<sup>a</sup> Excludes SNPs in regions thought to have entered by recombination. NS, non-synonymous, S, synonymous, NC, in non-coding genes;

<sup>b</sup> SNPs in regions thought to have undergone recombination. NS, non-synonymous, S, synonymous, NC, non coding

<sup>c</sup> AS: allocated to the lineage to the common ancestor of APEC 01 and S88; UTI89/AS: allocated to the divergence between UTI89 and the common ancestor of APEC 01 and S88 (lineage not specified); APEC/S88: allocated to the divergence between APEC 01 and S88 lineages (lineage not specified)..

<sup>d</sup> Numbers with outgroup supported/conflict(no support)