

Experiment	CG-MJSD(Average)			MJSD(Average)		
	First position	Second position	Time	First position	Second position	Time
1	5323	14704	6.3	5201	14842	386.7
2	7635	12688	9.0	7598	12616	388.2
3	7866	12344	8.7	7780	12260	386.5
4	9540	10698	8.0	9181	10216	387.7

Supp Table 1. Average values of predicted locations for the start position and end position of inserted sequences using CG-MJSD and MJSD among 10000 replicate experiments, and average run times of the proposed CG-MJSD and MJSD among 10000 replicate experiments. Experiment 1: *S. enterica* Typhi CT18 with *M. loti*. Experiment 2: *S. enterica* Typhi CT18 with *E. coli* K12. Experiment 3: two random segments of *S. enterica* Typhi CT18 (control). Experiment 4: a continuous stretch of *S. enterica* Typhi CT18.