

Figure S1. The growth curves of WT, $\Delta uvrY$, and $\Delta uvrY+$ strains in LB broth ($n=3$).

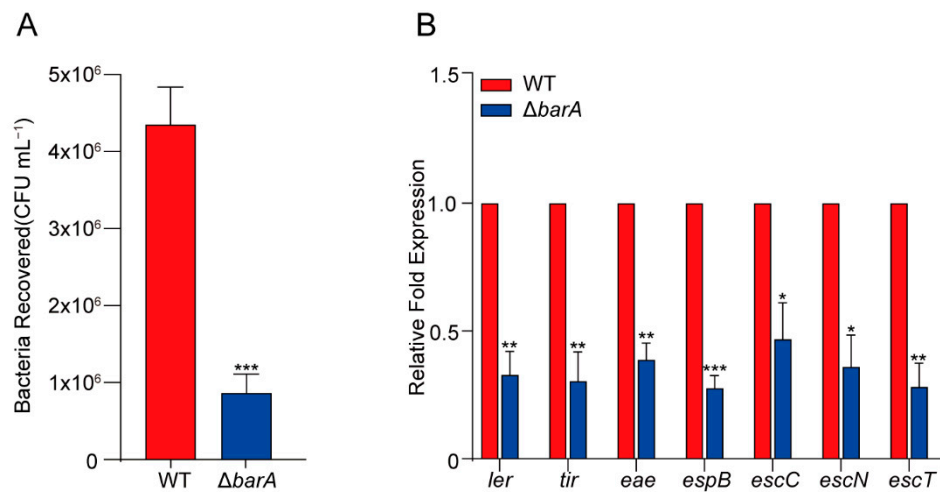


Figure S2. BarA positively affects the virulence of EHEC O157:H7. (A) Adhesion of WT and $\Delta barA$ to HeLa cells. (B) qRT-PCR of LEE genes expression changes in WT and $\Delta barA$ strains.

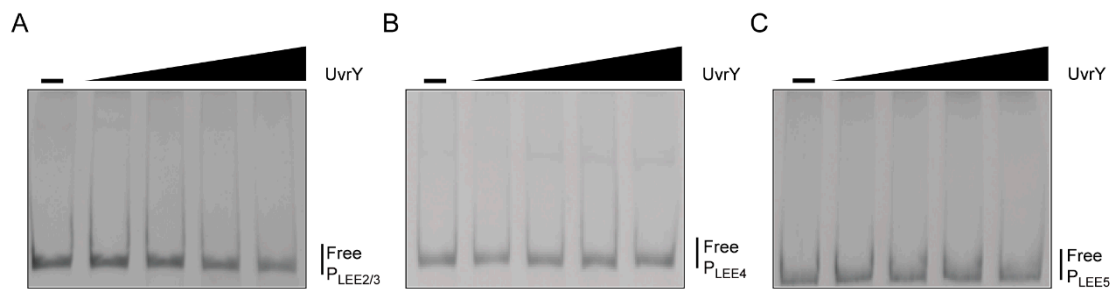


Figure S3. EMSA showing the in-vitro UvrY binding activity. (A–C) Chemiluminescence photographs showing the EMSA result for the binding affinity of protein UvrY-His6 with (A) the LEE2/3 promoter; $P_{LEE2/3}$, (B) LEE4 promoter; P_{LEE4} and (C) LEE5 promoter; P_{LEE5} . 30 ng of PCR products were added to each DNA and UvrY-his6 protein reaction mixtures from lane 1-5 in A-C. No protein was added to lane 1, while lane 2-5 contains reaction mixtures with UvrY-his6 protein concentrations from low to high, accordingly.

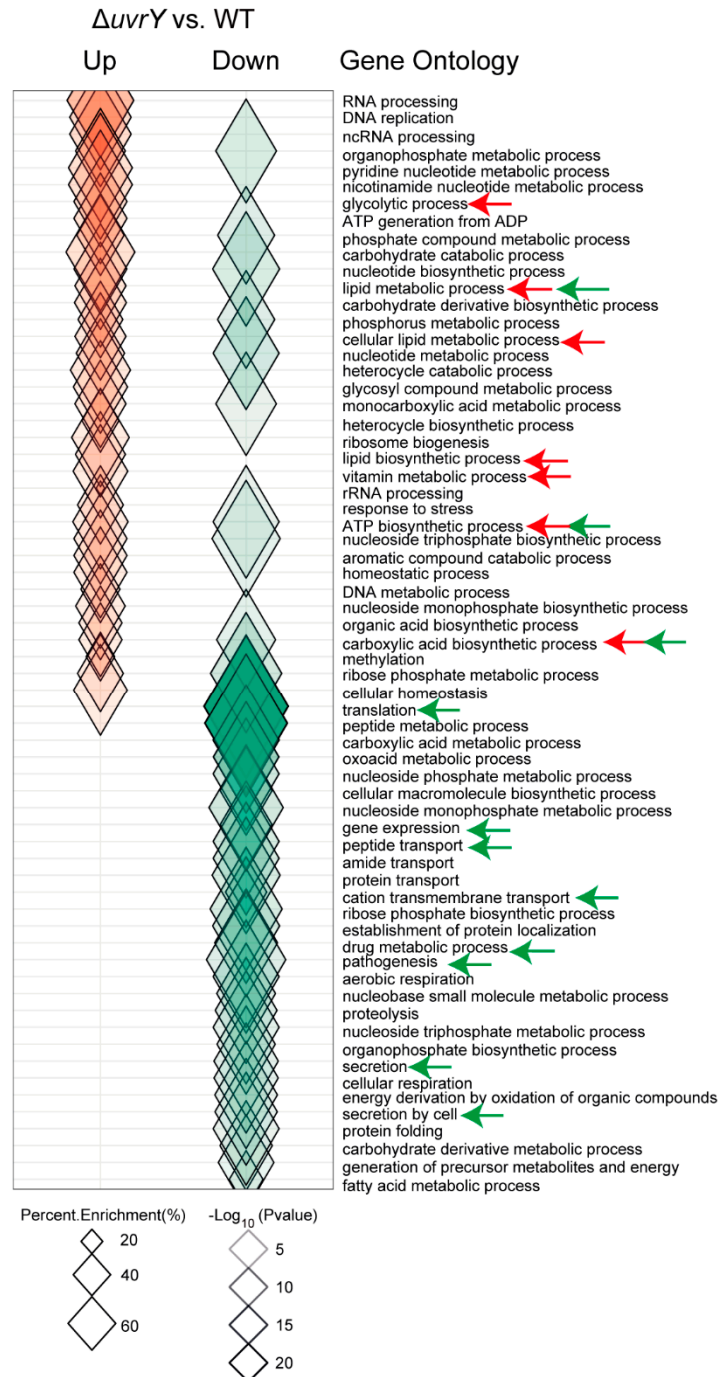


Figure S4. GO analysis of UvrY-regulated genes in EHEC O157:H7. Bubble plots showing the enriched GO results for down- and up-expressed genes in $\Delta uvrY$ strains compared with WT.

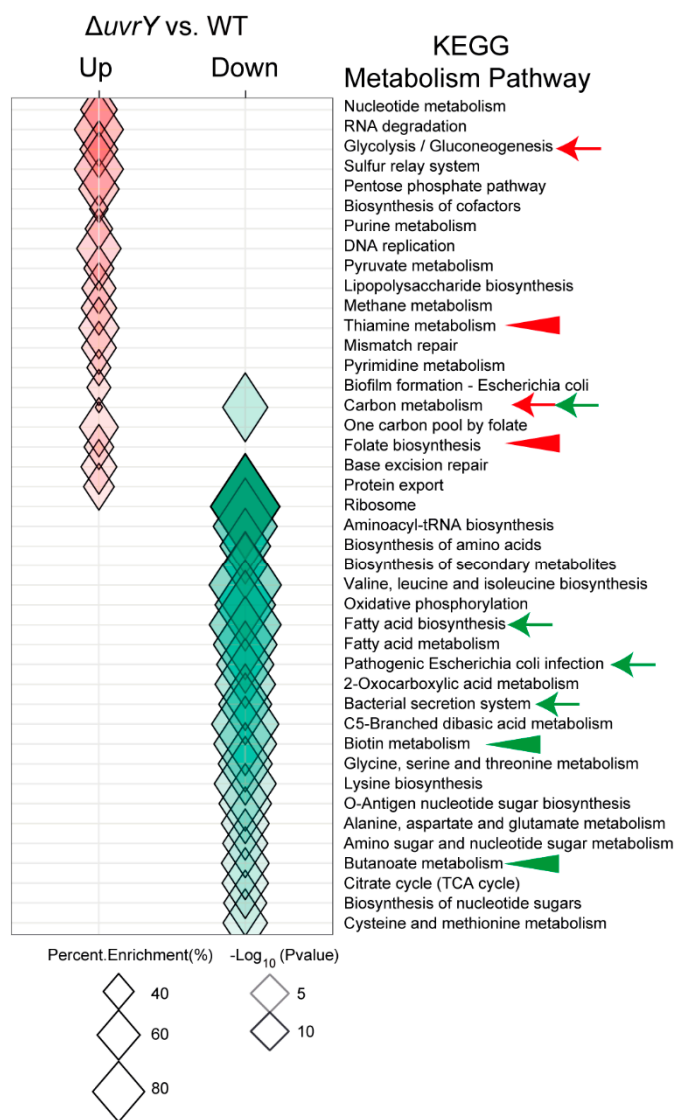


Figure S5. KEGG analysis of UvrY-regulated genes in EHEC O157:H7. Bubble plots showing the KEGG Pathway enrichment results for down- and up-expressed genes in $\Delta uvrY$ strains compared with WT.