

**Supplementary Figure 2.** Taxonomic distribution, phylogenetic analysis and sequence characteristics of OGTs from bacteria. **(A)** The phylum distribution of bacterial OGTs. **(B)** Upper panel: a phylogenetic tree of OGTs with phylum (inner circle) and conserved domain (outside circle) annotation. Lower panel: the human OGTs annotated with conserved domain. **(C)** Density distribution of identities between OGT homologues. **(D)** The predicted sub-cellular location of OGTs.

