



**Supplementary Figure 5. CT339 has a predicted metal binding motif and similar topology to ComEC.** (A) Multiple sequence alignment of 10 competence proteins identified as containing the multi-domain ComEC from the Conserved Domain Database. COG0658 was used to identify 10 bacterial species with similar competence domains with an E-value < 6e-3. Hashtags indicate conserved histidine metal-binding motifs. Conserved hydrophobic residues are highlighted in orange. Hydropathy plots of (B) ComEC from *Bacillus subtilis* and (C) CT339 from *Chlamydia*. Both predicted competence proteins display a large extracellular N-terminal loop stabilized by two cysteines (highlighted in yellow) and an extended C-terminal loop. The competence domain as identified by the conserved domain database is highlighted in blue and the transposon insertion site is highlighted in green.