

1 **Supplementary material**

2 **U(VI) Reduction by a Diversity of Outer Surface C-Type Cytochromes of *Geobacter***
3 ***sulfurreducens***

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14 **Table S1: Strains used in this study.**

Strain name	Deleted or modified gene(s)	Genbank accession number of deleted or modified gene(s)	Localization	Reference
Δ omcST	omcS; omcT is also not expressed	GI-39997599	OM	(1)
Δ omcZ	omcZ	GI-39997174	OM	(2)
Δ pilA	pilA	GI-39996596	OM	(3)
Δ pilA::cm	-	-	-	(3)
Δ BSTE	omcB, omcS, omcT, omcE	GI-39997831, GI-39997599, GI-39997598, GI-39995725	OM	(4)
Δ BSTEZ	omcB, omcS, omcT, omcE, omcZ	GI-39997831, GI-39997599, GI-39997598, GI-39995725, GI-39997174	OM	(4)

Δ aro-5	Alanine was substituted for each of the five aromatic amino acids in the carboxyl terminus of pilA gene	GI-39996596	C	(5)
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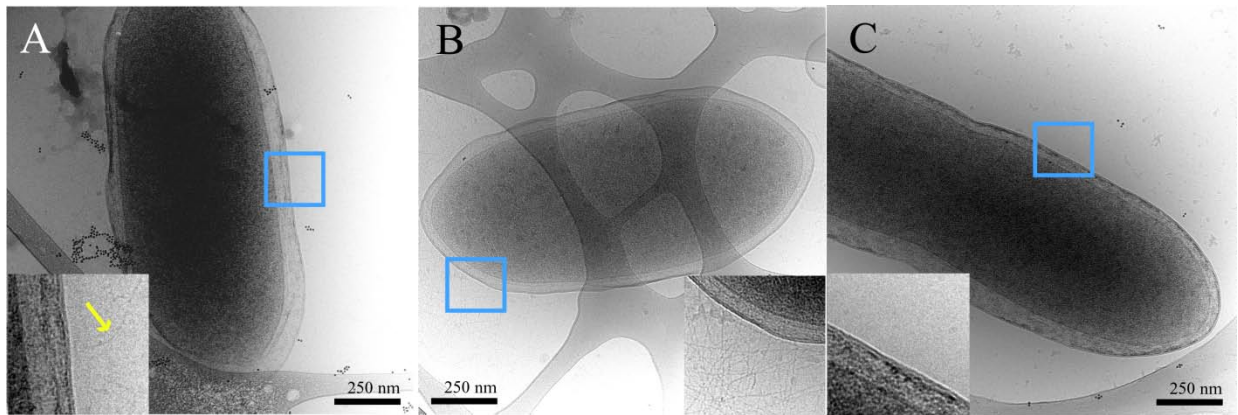
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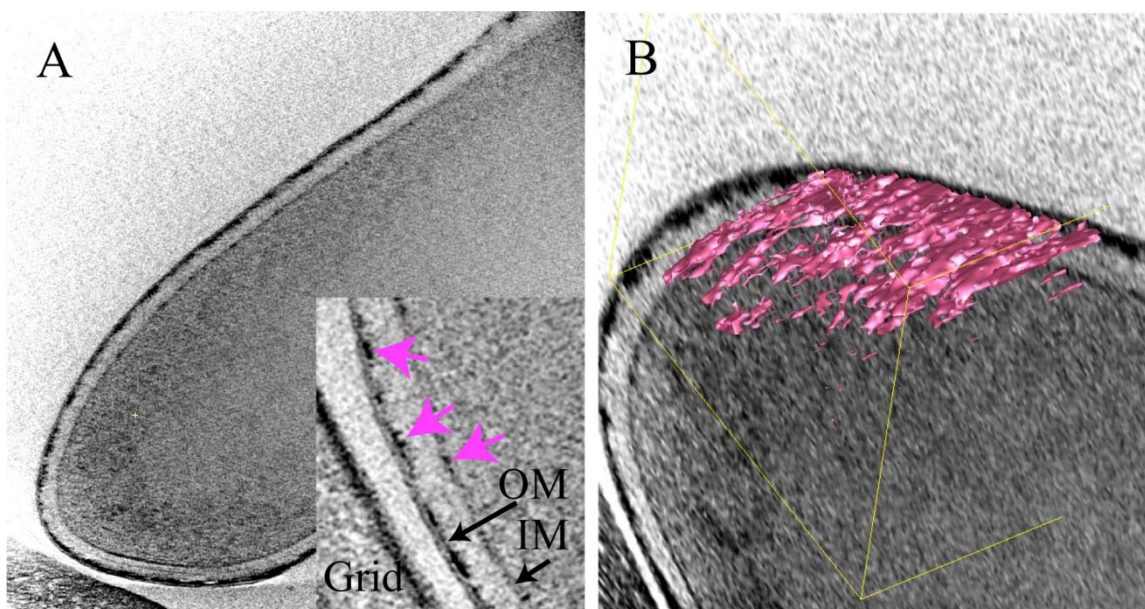
31 **Figure S1: CryoTEM images of (A) wild-type, (B) Δ BESTZ, and (C) Δ pilA cells**
32 **respiring U(VI).** The cell walls and high contrast aggregates were discussed in the
33 context of Fig. 6. We clearly see normal pili distribution in wild type, high abundance of
34 pili in cells of Δ BESTZ, and no pili in Δ pilA. Insets show magnified views of small
35 regions within blue boxes for enhanced view.

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49 **Figure S2: Cryo-ET of $\Delta pilA$ cells respiring U(VI).** A) Slice through a 3D cryo-ET
50 reconstruction of an intact cell in vitreous ice. The high contrast encasing/spanning the
51 OM is consistent with U deposition, the only high atomic number element (very “electron
52 dense”) added to the cultures. IM: inner membrane; OM: outer membrane; Grid: carbon
53 coated Formvar support. Pink arrows: aggregates at OM and IM. B) Slice through a 3D
54 cryo-ET of another cell with. The isosurface rendering in 3D of a region of the high
55 contrast aggregates is shown in dark pink, superimposed on a slice of the same cryo-ET
56 reconstruction in grey-scale. The yellow box outlines the 3D isosurface sub-volume. See
57 XEDS line scans across the cell surface and cell wall in **Figure 7B** unequivocally
58 identifying the aggregates as U. Scale: the width of the periplasmic space is
59 approximately 30 nm.

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65 **References**

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