Supplementary material:

Chemical or genetic alteration of proton motive force results in loss of virulence of *Burkholderia glumae*, the cause of rice

bacterial panicle blight.

Asif Iqbal<sup>1</sup>, Pradip R. Panta<sup>1</sup>, John Ontoy<sup>2</sup>, Jobelle Bruno<sup>2</sup>, Jong Hyun Ham<sup>2</sup> and William T. Doerrler<sup>1\*</sup>

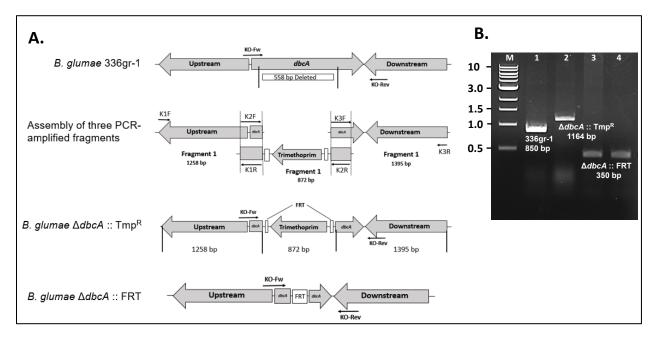
<sup>1</sup>Department of Biological Sciences, Louisiana State University, Baton Rouge, LA, USA

<sup>2</sup>Department of Plant Pathology and Crop Physiology, Louisiana State University Agricultural Center, Baton Rouge, LA 70803, USA

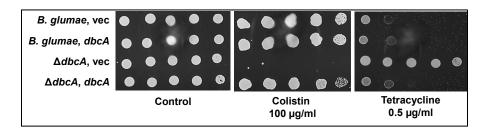
## \* Correspondence:

William T. Doerrler wdoerr@lsu.edu

**Keywords:** colistin; antibiotic resistance; lipopolysaccharide; membrane protein; proton motive force



**Figure S1**. **Deletion of** *B. glumae* **336gr-1** *bglu\_1g06460* (*dbcA*). **A**. The illustration shows position of *dbcA* gene in *B. glumae* 336gr-1 genome and strategy for creating the deletion mutant. *dbcA* is located between *bglu\_1g06450* and *bglu\_1g06470*. The anneal site for primers K1F, K1R, K2F, K2R, K3F, K3R, KO-FW, and KO-REV are shown. The K1R, K2F, K2R, and K3F primers contain homology sequences are highlighted with parallel lines. Genes are not drawn to scale. **B**. Agarose gel stained with ethidium bromide shows the confirmation of PCR-amplified DNA fragments using KO-FW, and KO-REV primers from parental strain 336gr-1, trimethoprim resistant mutant strain (Δ*dbcA*::TmpR), and trimethoprim sensitive mutant strain (Δ*dbcA*::FRT).



**Figure S2. Tetracycline resistance of** *B. glumae* Δ*dbcA*. Serially  $log_{10}$  diluted cells of *B. glumae* 336gr-1 and Δ*dbcA* transformed with control vector (vec) and pSC501 (*dbcA*) were spotted and grown on MH2 agar medium containing 100  $\mu$ g/ml trimethoprim alone or with either 100  $\mu$ g/ml of colistin or 0.5  $\mu$ g/ml tetracycline.

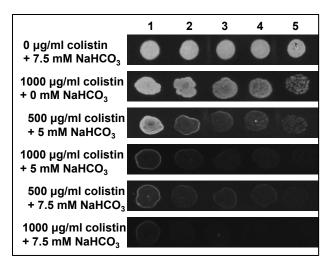


Figure S3. Colistin sensitivity of wild type *B. glumae* 336gr-1 in the presence of NaHCO<sub>3</sub>. Serially  $\log_{10}$ -diluted cells of *B. glumae* 336gr-1 was spotted and grown on MH2 agar buffered with 70 mM Tris to pH 7.35 containing 0, 5, or 7.5 mM sodium bicarbonate and 0, 500, or 1000  $\mu$ g/ml colistin as indicated and incubated at 37°C for 48 hours.

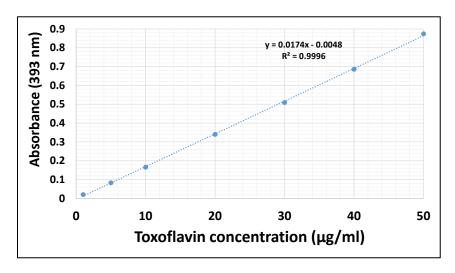


Figure S4. Standard curve for toxoflavin assay.