



Research article

Interruption of the tricarboxylic acid cycle in *Staphylococcus aureus* leads to increased tolerance to innate immunity

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Supplemental

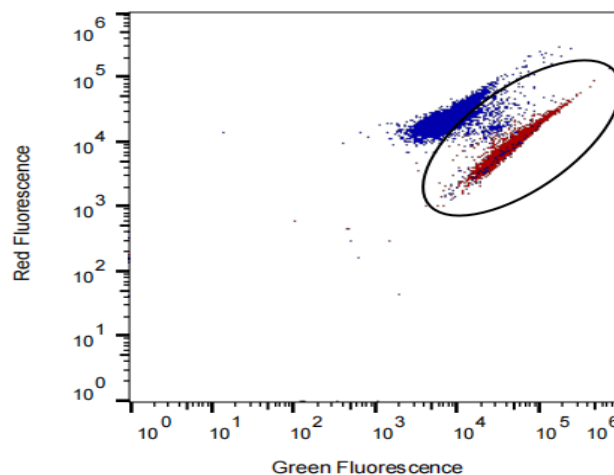


Figure S1. Treatment with CCCP dissipates membrane potential. HG003 was grown to mid-exponential phase and membrane potential was measured using BacLight Bacterial Membrane Potential Kit according to manufacturer's instructions. DiOC₂(3) was excited at 488 nm, and emissions of the green and red fluorescence were detected with bandpass filters of 515/20- and 616/23-nm, respectively. A gate was drawn around low membrane potential cells with 100% of CCCP treated cells (red) and 8% of nontreated cells (blue) occurring within the gate.

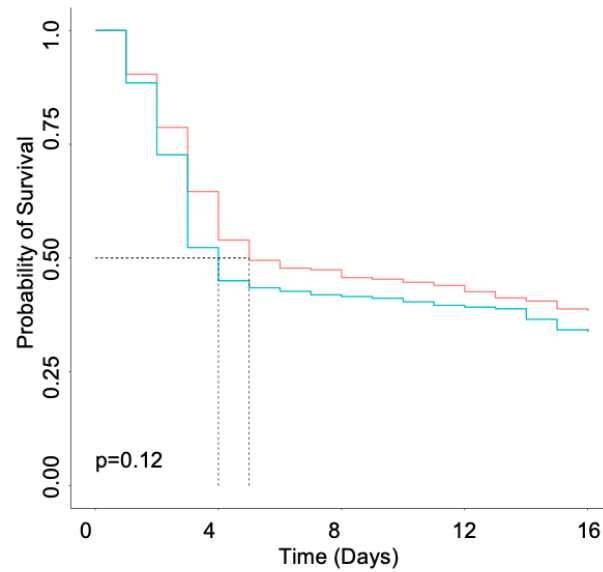


Figure S2. *D. melanogaster* infected with wild-type HG003 show no sex bias in their immune function. Newly eclosed *D. melanogaster* were separated and allowed to mature for 24 hours. Following maturation flies were pricked in the thorax with a Tungsten needle dipped in an inoculum of wild-type HG003. Upon Kaplan-Meier analysis there appears to be no difference in survival based on sex (males – blue, females – red), $p = 0.12$.

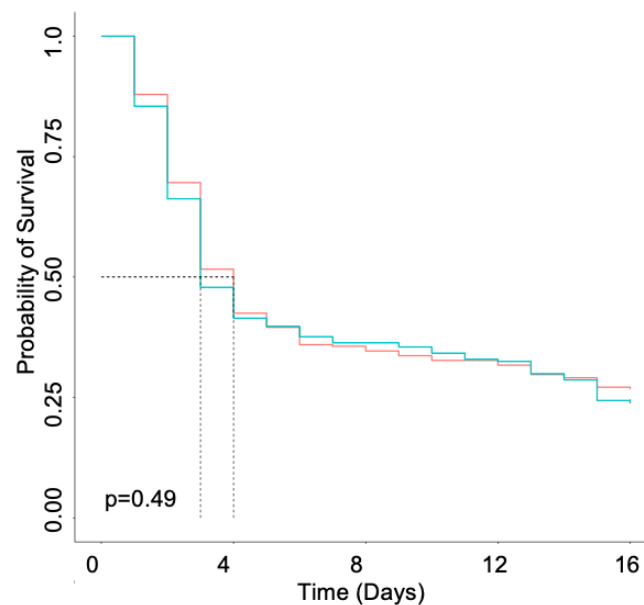


Figure S3. *D. melanogaster* infected with *fumC::NΣ* show no sex bias in their immune function. Newly eclosed *D. melanogaster* were separated and allowed to mature for 24 hours. Following maturation flies were pricked in the thorax with a Tungsten needle dipped in an inoculum of *fumC::NΣ*. Upon Kaplan-Meier analysis there appears to be no difference in survival based on sex (males – blue, females – red), $p = 0.12$.

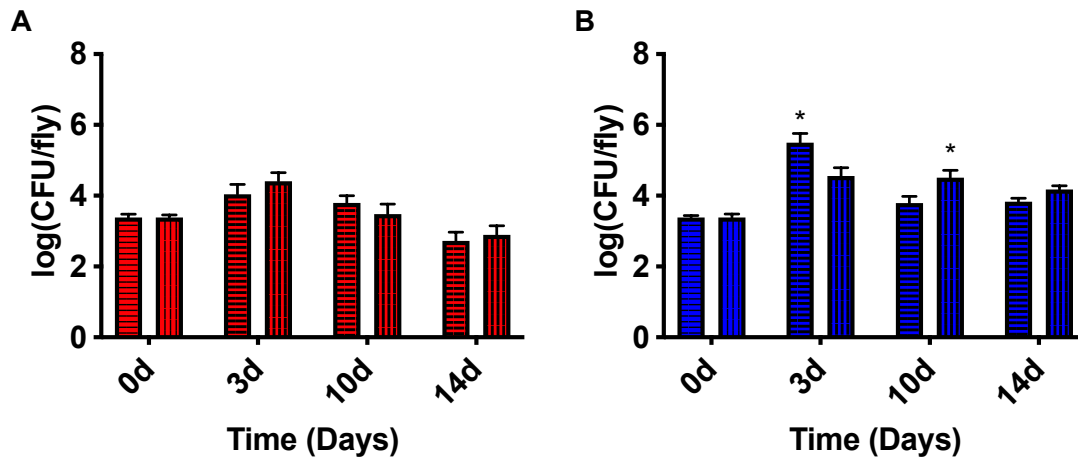


Figure S4. *D. melanogaster* infected with the same strain of *S. aureus* show no sex bias in bacterial load. *D. melanogaster* were infected with either wild-type HG003 or *fumC::NΣ* using the pinprick method. There is no difference in bacterial load based on sex when *D. melanogaster* are infected with wild-type HG003 (males-red horizontal line, females-red vertical line) (A). However, males infected with *fumC::NΣ* (blue, horizontal line) have higher bacterial load than females infected with *fumC::NΣ* (blue, vertical line) at three days post infection ($p = 0.0034$; B). In contrast, females infected with *fumC::NΣ* show a higher bacterial load than males infected with *fumC::NΣ* at 10 days post infection ($p = 0.0415$; B).



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