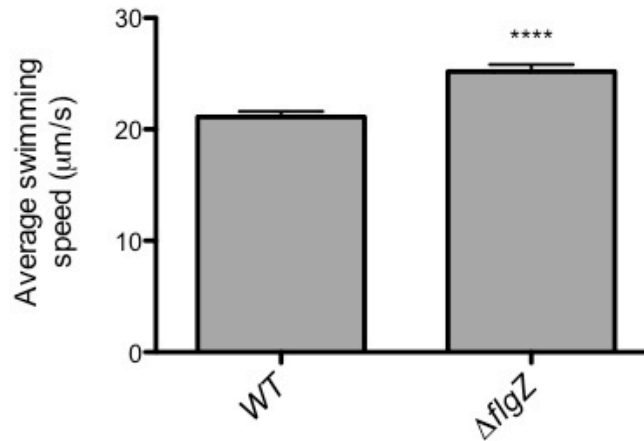


1

SUPPLEMENTAL FIGURES

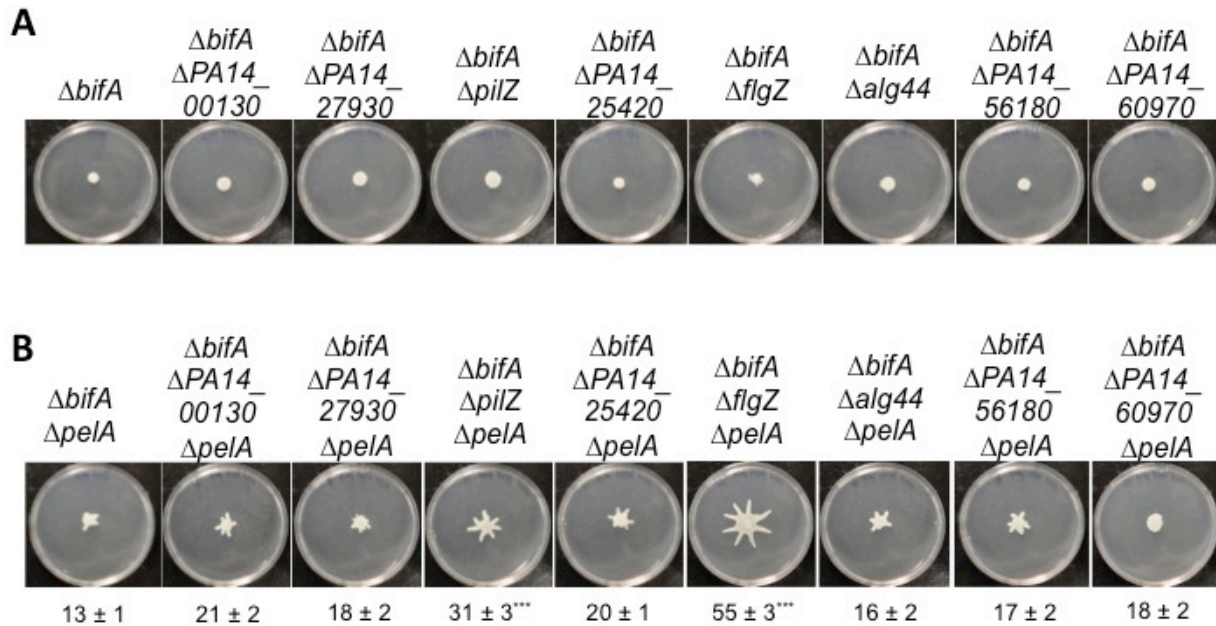
Supplemental Fig. S1



2

3 **Supplemental Figure S1. A *flgZ* mutant swims slightly faster than the WT.** Average cell
4 swimming speed ($\mu\text{m/s}$) of WT and $\Delta flgZ$ cells in a zero-flow, free-swimming capillary assay
5 performed as indicated in the Materials and Methods. Data are expressed as means \pm SEM.
6 Significance was determined by a two-tailed t-test. ****, $P < 0.0001$.

Supplemental Fig. S2



7

8 **Supplemental Figure S2. FlgZ is the main PilZ domain protein involved in swarming**

9 **motility repression in the $\Delta bifA$ $\Delta pelA$ mutant.** (A-B) Representative swarm plates of the

10 strains indicated. See text for details. The numbers below the swarm plates indicate the

11 percentage (means ± SEM, from 9-14 plates per strain) of the plate surface coverage of the

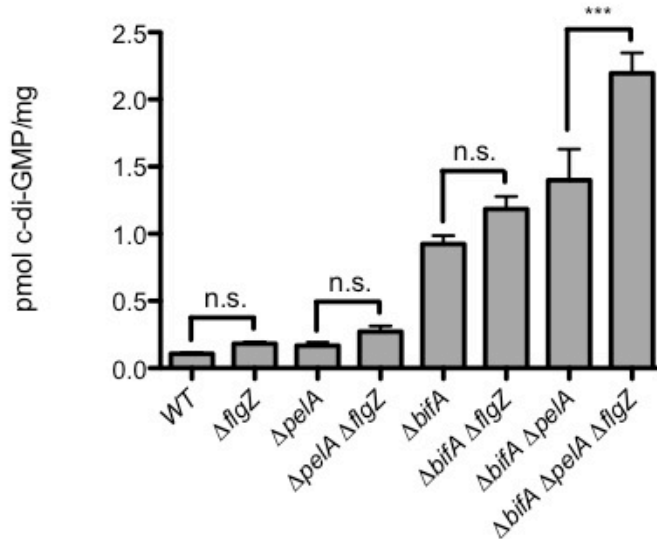
12 mutant strains relative to that of the WT strain (set at 100%). Significance was determined by

13 analysis of variance and Dunnett's posttest comparison for differences relative to the $\Delta bifA$

14 $\Delta pelA$ mutant. ***, P < 0.001.

15

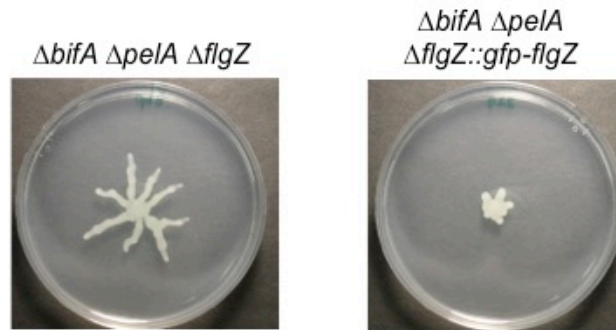
Supplemental Fig. S3



16

17 **Supplemental Figure S3. Restored swarming in the $\Delta bifA \Delta flgZ \Delta pelA$ mutant is not due to**
18 **a global decrease in c-di-GMP levels.** Quantification of cellular c-di-GMP levels by LC-MS for
19 the indicated strains grown on swarm plates. Data are expressed as picomoles of c-di-GMP per
20 mg (dry weight) of the cell pellets from which the nucleotides were extracted. The data represent
21 three independent experiments with three biological replicates each, and values are reported as
22 mean \pm SEM. Significance was determined by analysis of variance and Tukey's posttest
23 comparison for the differences between strains where indicated. n.s., not significant; ***, $P <$
24 0.001. As expected, $\Delta bifA$ is significantly different than WT ($P < 0.001$).

Supplemental Fig. S4



25

26 **Supplemental Figure S4. Swarming motility of cells containing the *gfp-flgZ* gene fusion.**

27 Representative swarm plates of strains indicated. Swarm assays were performed as indicated in

28 the Materials and Methods.