Supplemental Figure S1. Damron et al. "Genes Required for and Effects of Inducible Alginate Overproduction by Growth of *Pseudomonas aeruginosa* on PIAAMV"

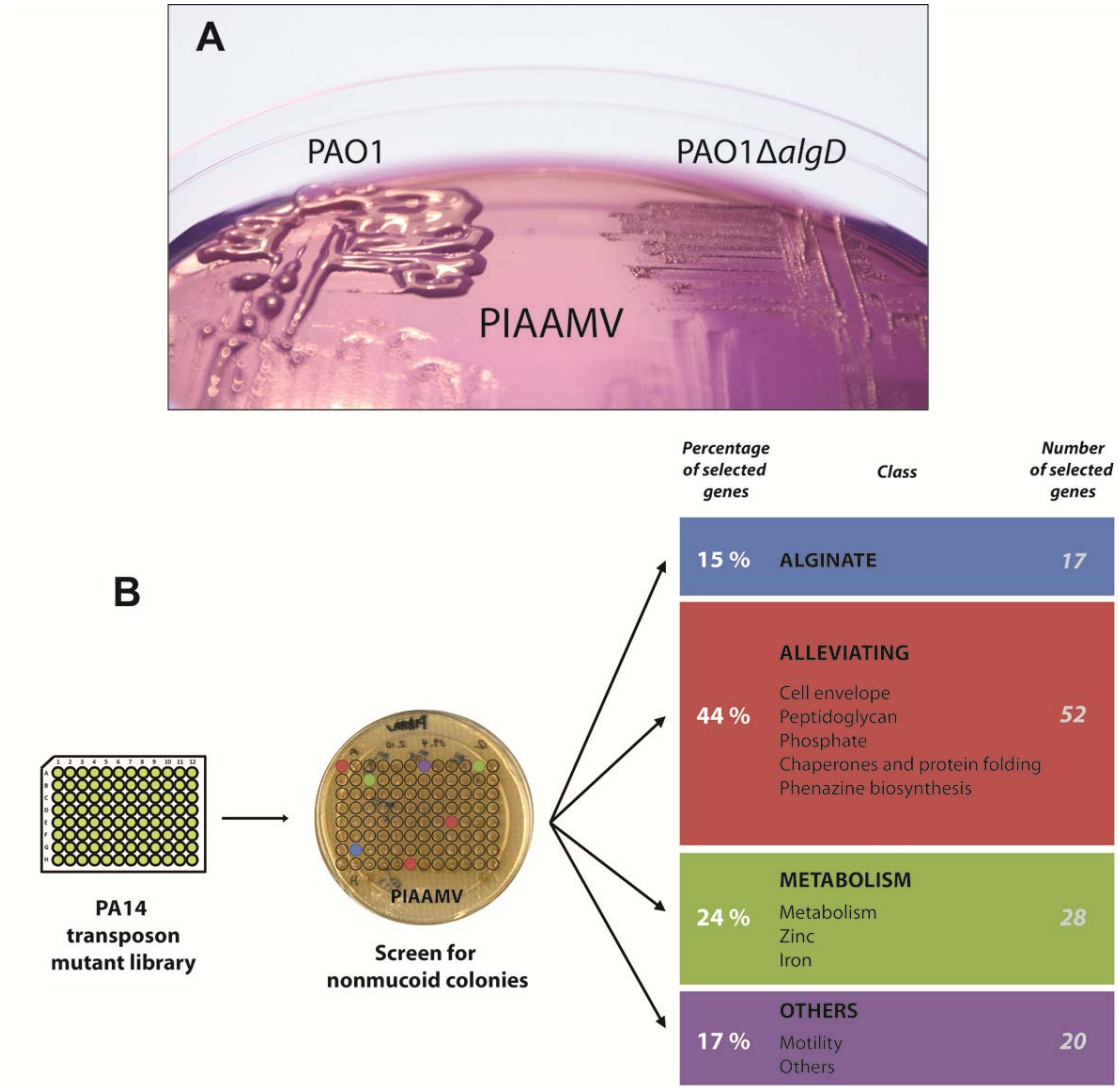

Figure 1. Induction of mucoid phenotype of *Pseudomonas aeruginosa* with PIAAMV and experimental design of the PA14 PIAAMV nonmucoid mutant screen. A. *Pseudomonas* isolation agar supplemented with ammonium metavanadate (PIAAMV) induces alginate overproduction (1), which is a clinically important phenotype known as mucoid. Wild type nonmucoid strain PAO1 converts to the mucoid phenotype after growth on PIAAMV. As a control, strain PAO1Δ*algD*, which lacks the key enzyme for alginate biosynthesis is shown for comparison. Strains were cultured on PIAAMV at 25°C for three days with Congo red (40 µg/ml) and Coomassie blue dyes (20 µg/ml) for imaging contrast. B. To identify genes required for the mucoid phenotype on PIAAMV, the PA14 *P. aeruginosa* non-redundant transposon mutant library (2) was cultured on PIA and PIAAMV at 25°C and nonmucoid mutants were screened. One hundred and seventeen genes were found to be required for the mucoid phenotype on PIAAMV. These genes were then classified in four classes (Alginate, Metabolism,

Alleviating, and Others). Alginate genes were expected to be required. Furthermore, mutations in genes involved in metabolism could also cause *P. aeruginosa* to not make alginate on PIAAMV. Since the purpose of this study was to identify cell membrane stress pathways, genes that alleviate stress and cause *P. aeruginosa* to be nonmucoid on PIAAMV were of the upmost interest.

References for Supplemental Figure S1

1. **Damron, F. H., M. R. Davis Jr, T. R. Withers, R. K. Ernst, J. B. Goldberg, G. Yu, and H. D. Yu.** 2011. Vanadate and triclosan synergistically induce alginate production by *Pseudomonas aeruginosa* strain PAO1. Mol Microbiol **81:**554-570.
2. **Liberati, N. T., J. M. Urbach, S. Miyata, D. G. Lee, E. Drenkard, G. Wu, J. Villanueva, T. Wei, and F. M. Ausubel.** 2006. An ordered, nonredundant library of *Pseudomonas aeruginosa* strain PA14 transposon insertion mutants. Proc Natl Acad Sci U S A **103:**2833-8.