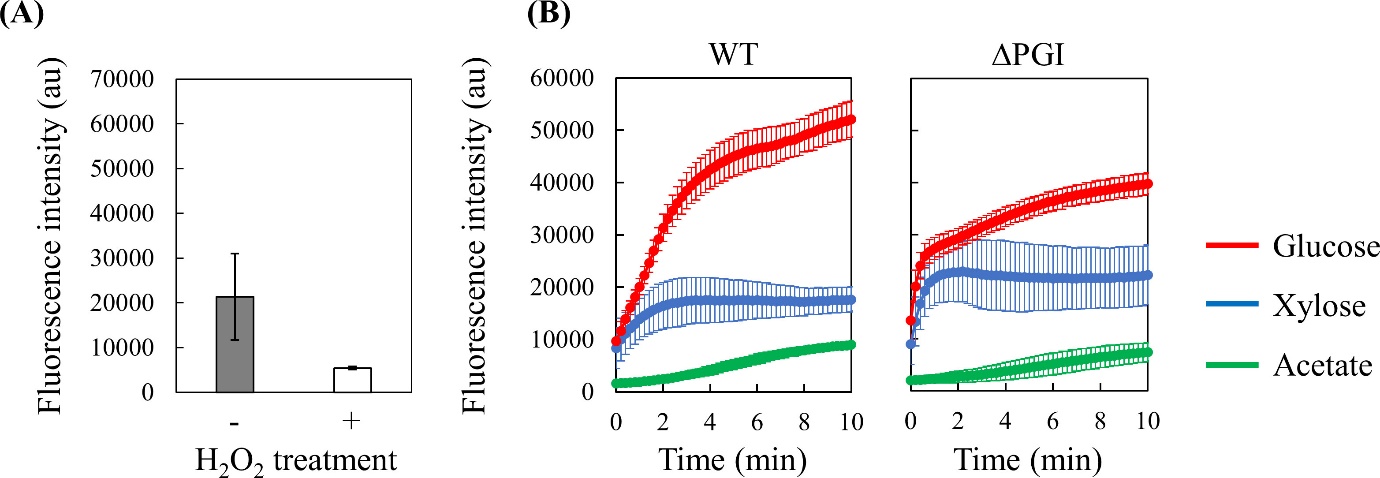
# Additional Writing exercise 06: Figure Narrative

## Dr. Morgan Feeney, AY 2024-25



**Aim: to figure out the effect of deleting *pgi* on the levels of NADPH in starved *E. coli* with different carbon sources**

**Method: we used a fluorescent biosensor (mBFP) to measure NADPH levels after starving the cells in PBS supplemented with glucose, xylose, or acetate.**

**Result: deleting pgi decreased NADPH production when cells were fed glucose**

**Significance: pgi is required for NADPH production from glucose**

**Fig 2** Perturbation analyses of starved *E. coli* cells. (**A**) NADPH depletion by H2O2 treatment (**B**) Time courses of mBFP fluorescence intensity of WT and ΔPGI strains under glucose, xylose, and acetate conditions. Error bars represent standard deviations from triplicate experiments using cells obtained from different pre-cultures.

[Reproduced from: Ueno K, Sawada S, Ishibashi M, Kanda Y, Shimizu H, Toya Y. 2024. Identification of a novel NADPH generation reaction in the pentose phosphate pathway in *Escherichia coli* using mBFP. J Bacteriol 206:e00276-24.

<https://doi.org/10.1128/jb.00276-24>]

1. How would you describe the results presented in this figure?
2. Compare your description with the authors’.