Flux Manuscript: Story Summary  
  
Single Environment Results

* Higher mean stress AND max stress associated with higher (more positive) fitness change in high stress environments, but lower (less positive and even negative) fitness change in no stress conditions (Fig 1a, b).
* Fluctuating treatments are not qualitatively different than constant treatments. There is no measurable “special quality” imparted by fluctuation when fitness is assayed in single environments. Furthermore, there is no indication that fluctuation reduces the cost paid by high mean stress and high max stress treatments when assayed in no stress (Fig 1a, b).

Dual Environment Results

* Exposure to intermediate AND fluctuating stress is most likely to result in increased fitness in in BOTH no stress and high stress environments. Intermediate exposure or wide fluctuation in conditions with an intermediate mean stress exposure alone may not be sufficient to reproduce this outcome (Fig 2, Fig 3a).
* No stress and low stress treatments tend to increase in fitness only in no stress. Moderate and high stress treatments likely to increase in fitness only in high stress. Any stress exposure in evolutionary history carries some chance of fitness increase in only high stress. Exposure to high stress in evolutionary history, regardless of fluctuation, results in fitness increase in high stress (Fig 2, Fig 3a).
* Decreases in fitness are less frequent but mirror fitness increase results. When decreases in fitness are measured, higher stress treatments tend to decrease in fitness only in the no stress environment and lower stress treatments tend to decrease in fitness only in the high stress environment. Any stress exposure in evolutionary history carried some chance of fitness decrease only in low stress. No lineages from any treatment decreased in fitness in both no and high stress (Fig 2, Fig 3b).