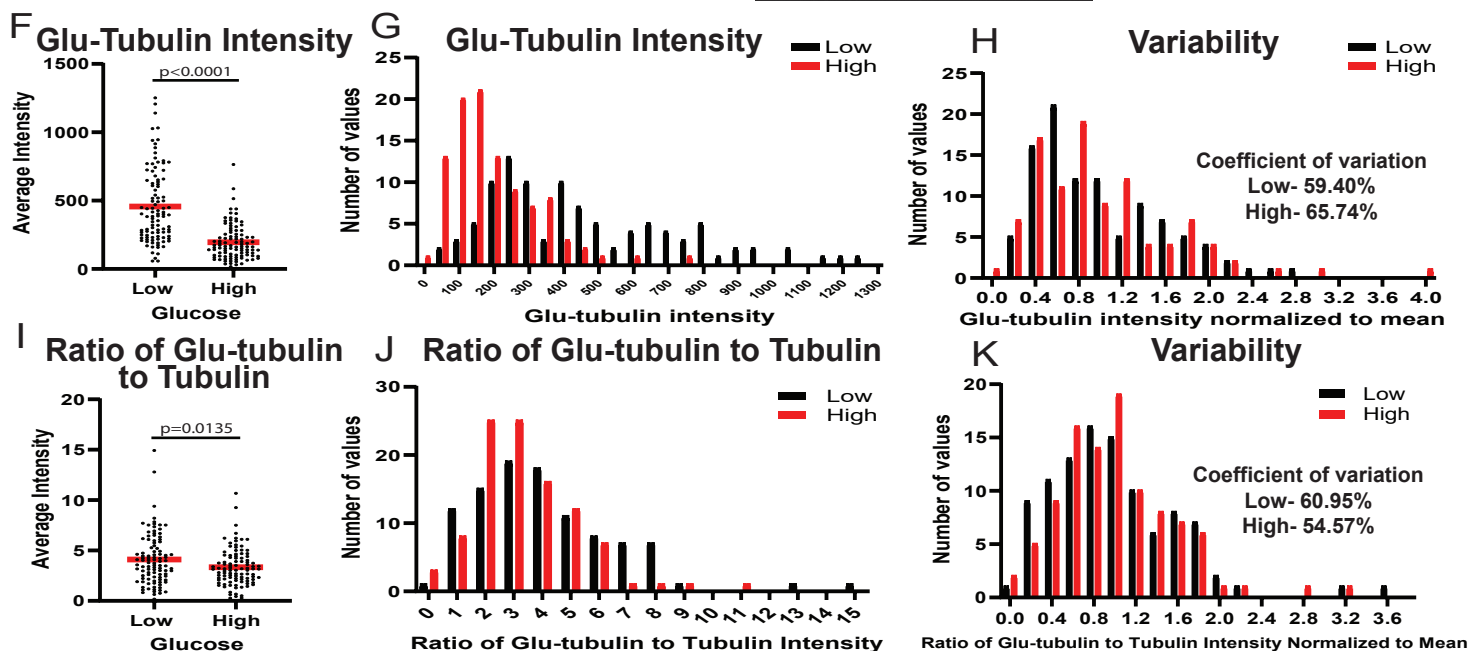
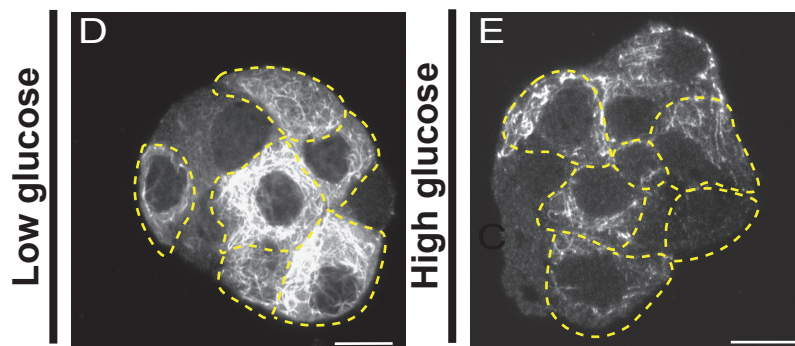
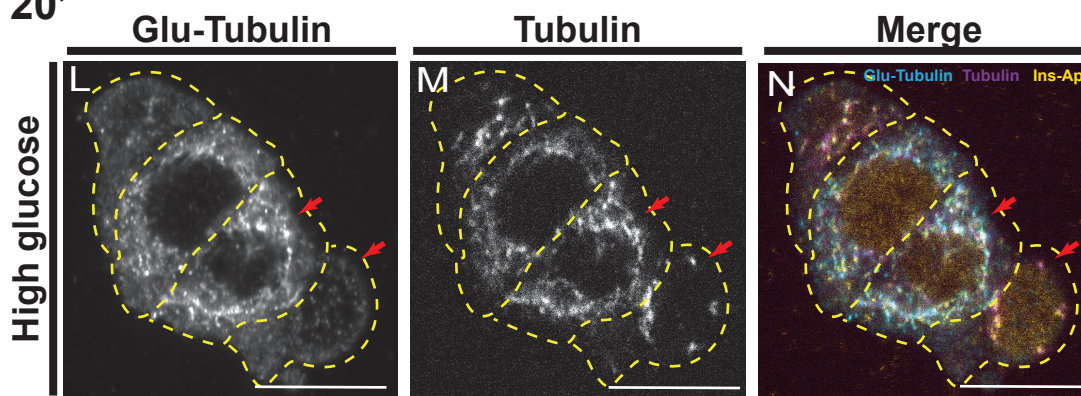


Ice 30'

Glu-Tubulin



Dilution 20'



**Figure 1- figure supplement 1. MT stability is regulated by glucose stimulation.**

- A) Scatterplot of tubulin average intensity for each cell. Mean, red bar. n=101 cells per condition.
- B) Histogram of tubulin average intensity in low (black) and high (red) glucose. Bin=100. n=101 cells per condition, Students' t-test found no statistical significance.
- C) Histogram of tubulin average intensity normalized to the mean of each low (black) and high (glucose). Bin=0.2. Coefficient of variation= standard deviation/mean. n=101 cells per condition.
- D-E) Glu-tubulin staining in disseminated islets after 30 min on ice (corresponds to Figure 1M-O).  $\beta$ -cells outlined in dashed yellow lines. Single slice from the bottom of the cell. Scale bar 10  $\mu$ m.
- F) Scatterplot of Glu-tubulin average intensity for each cell after 30 minutes in high glucose. Mean, red bar. Students' t-test ,  $p < 0.0001$ . n=100-101 cells per condition
- G) Histogram of Glu-tubulin average intensity in low (black) and high (red) glucose after 30 min on ice. Bin=100. n=100-101 cells per condition
- H) Histogram of Glu-tubulin average intensity normalized to the mean of each low (black) and high (glucose) after 30 min on ice. Bin=0.2. Coefficient of variation= standard deviation/mean. n=100-101 cells per condition.
- I) Scatterplot of Glu-tubulin to tubulin ratio of average intensity for each cell after 30 min on ice. Mean, red bar. Students' t-test ,  $p = 0.135$ . n=100-101 cells per condition.
- J) Histogram of Glu-tubulin to tubulin ratio of average intensity in low (black) and high (red) glucose after 30 min on ice. Bin=1.0. n=100-101 cells per condition
- K) Histogram of Glu-tubulin to tubulin ratio of average intensity normalized to the mean of each low (black) and high (glucose) after 30 min on ice. Bin=0.2. Coefficient of variation= standard deviation/mean. n=100-101 cells per condition
- L-N) Disseminated islets placed extracted for one minute and placed in buffer for 20 minutes. Stained for Glu-tubulin (L) and tubulin (M).  $\beta$ -cells were identified by red nuclear Ins-Apl expression (N, yellow), merged with Glu-tubulin (cyan) and tubulin (magenta). Red arrows pointing to differences between cells. Single slice from the bottom of the cells. Scale bar 10  $\mu$ m.