Figure S16: Sensitivity of S. cerevisiae to blue (438/24 nm) and teal (504/12 nm) excitation light in different culturing media

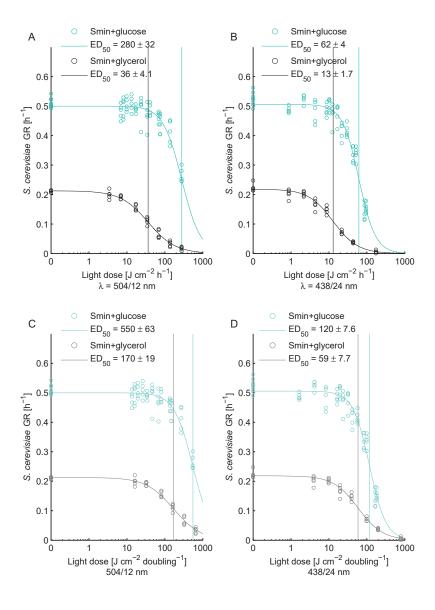


Figure S16 (previous page)

Cells were cultured in Smin+glucose or Smin+glycerol and illuminated with different light doses every five minutes for 495 minutes. The light dose was altered by changing the exposure time while keeping the light intensity constant. Each point represents a single measurement. A and B: The growth rate is plotted against the light dose per hour. Line indicate fit of the sigmoidal model. ED_{50} values are indicated by vertical lines and are given in J cm⁻² h⁻¹. Model fit parameters are given with \pm confidence interval. C and D: The growth rate is plotted against the light dose per unstressed doubling time calculated based on the measured doubling time in the respective growth media if cells were not exposed to fluorescence excitation light (0 J cm $^{-2}$ h $^{-1}$). Line indicate fit of the sigmoidal model. ED₅₀-values are indicated by vertical lines and are given in J cm⁻² doubling time⁻¹. Model fit parameters are given with \pm confidence interval. C: Cells are ~2.5 fold more sensitive to teal light in Smin+glycerol compared to Smin+glucose, even after accounting for the difference in doubling time. D: Cells are \sim 2fold more sensitive to blue light in Smin+glycerol compared to Smin+glucose, even after accounting for the difference in doubling time.