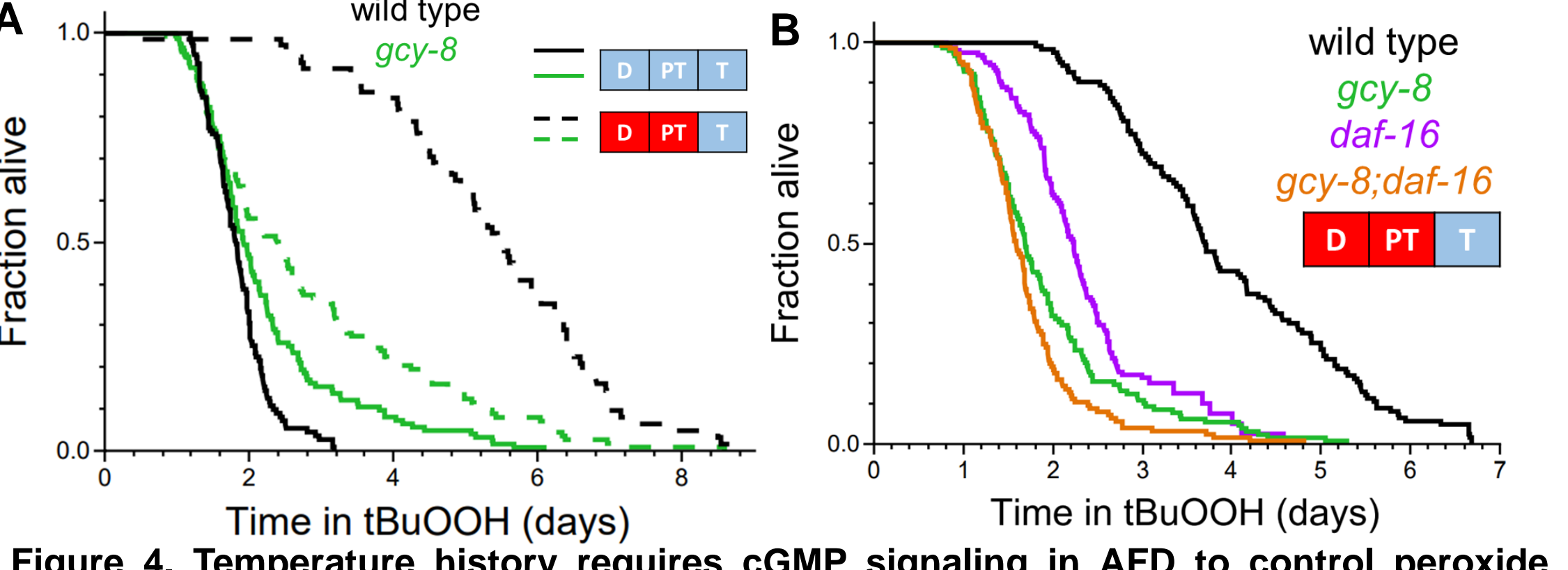
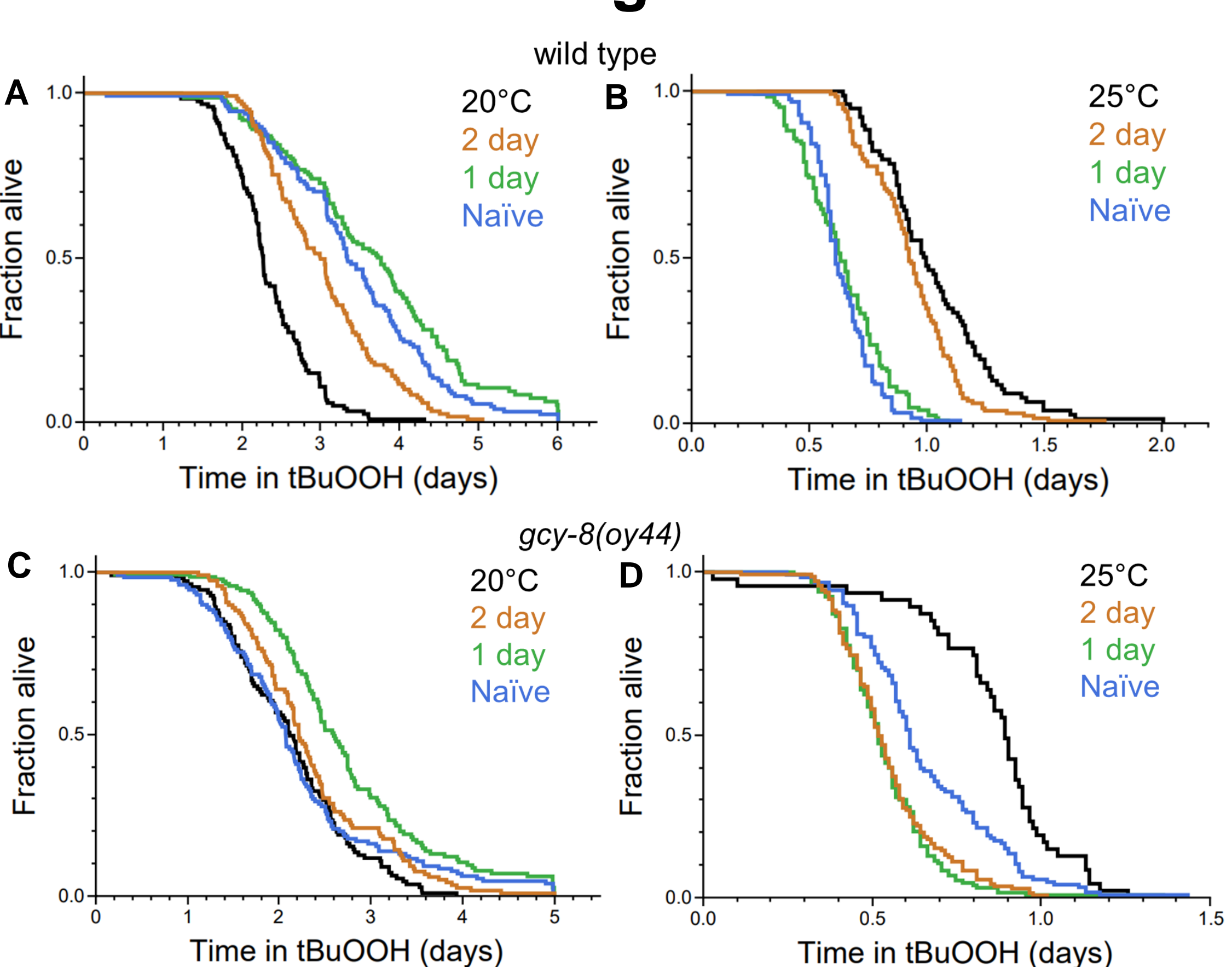


# Temperature requires cGMP signaling in AFD to control peroxide resistance



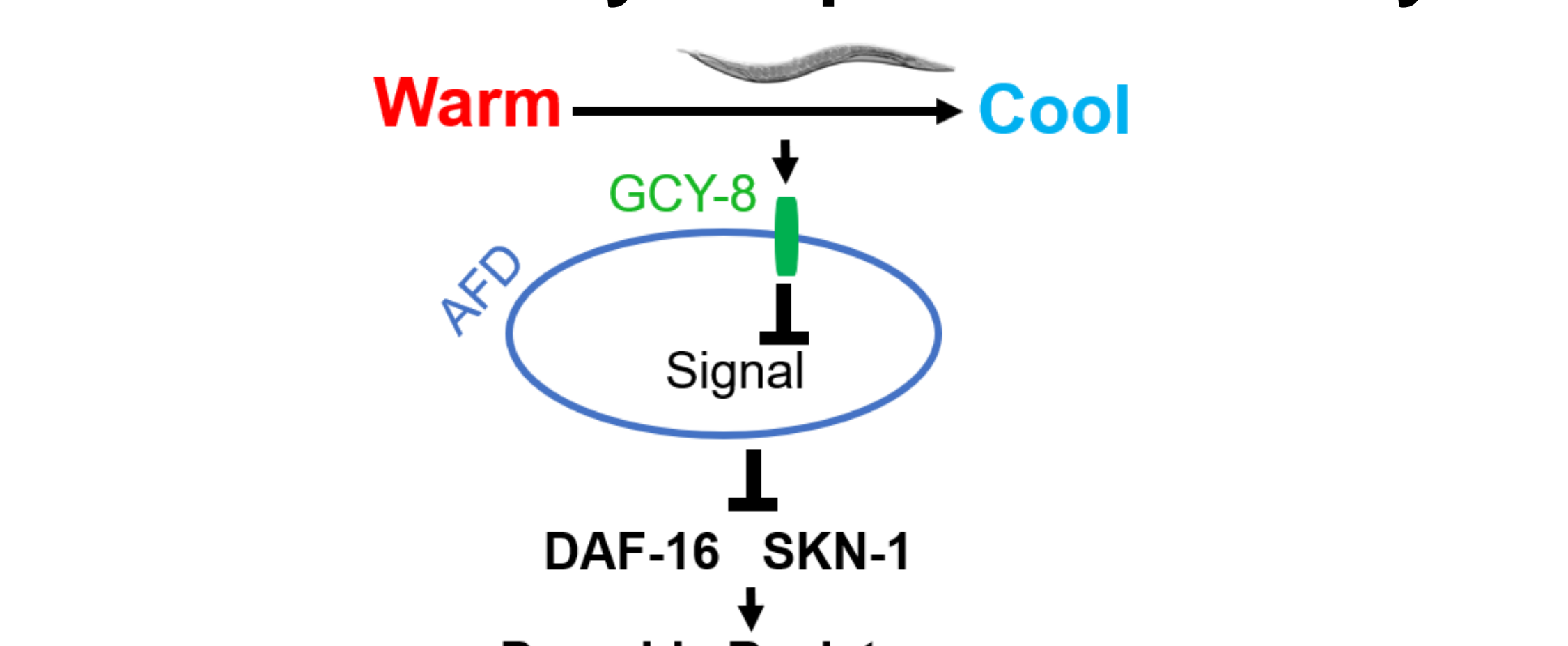
**Figure 4. Temperature history requires cGMP signaling in AFD to control peroxide resistance.** A) Wild type and *gcy-8(oy44)* animals were grown continuously at 20°C or grown at 25°C and shifted to 20°C at day two of adulthood and survival to 6 mM *tert*-butyl hydroperoxide was determined using the lifespan machine. B) Wild type, *gcy-8(oy44)*, *daf-16(mu86)*, and *gcy-8;daf-16* animals were grown at 25°C and shifted to 20°C at day two of adulthood and survival to 6 mM *tert*-butyl hydroperoxide was determined.

# GCY-8 enables animals to more quickly increase and maintain peroxide resistance in response to temperature changes



**Figure 5. GCY-8 enables animals to more quickly increase and maintain peroxide resistance in response to temperature changes.** A,C) Wild type or *gcy-8(oy44)* animals were grown continuously at 20°C (black) or grown at 25°C and shifted down to 20°C for two days (orange), 1 day (green), or grown continuously at 25°C (blue) and peroxide resistance was measured at day two of adulthood. B,D) Wild type or *gcy-8(oy44)* animals were grown continuously at 25°C (black) or grown at 20°C and shifted up to 25°C for two days (orange), 1 day (green), or grown continuously at 20°C (blue) and peroxide resistance was measured at day two of adulthood.

# A model for the control of peroxide resistance by temperature history



# Acknowledgements

We would like to thank the Caenorhabditis Genetics Center (CGC), the Sengupta Lab, Mori Lab, and the Cram Lab for strains, advice, and reagents.

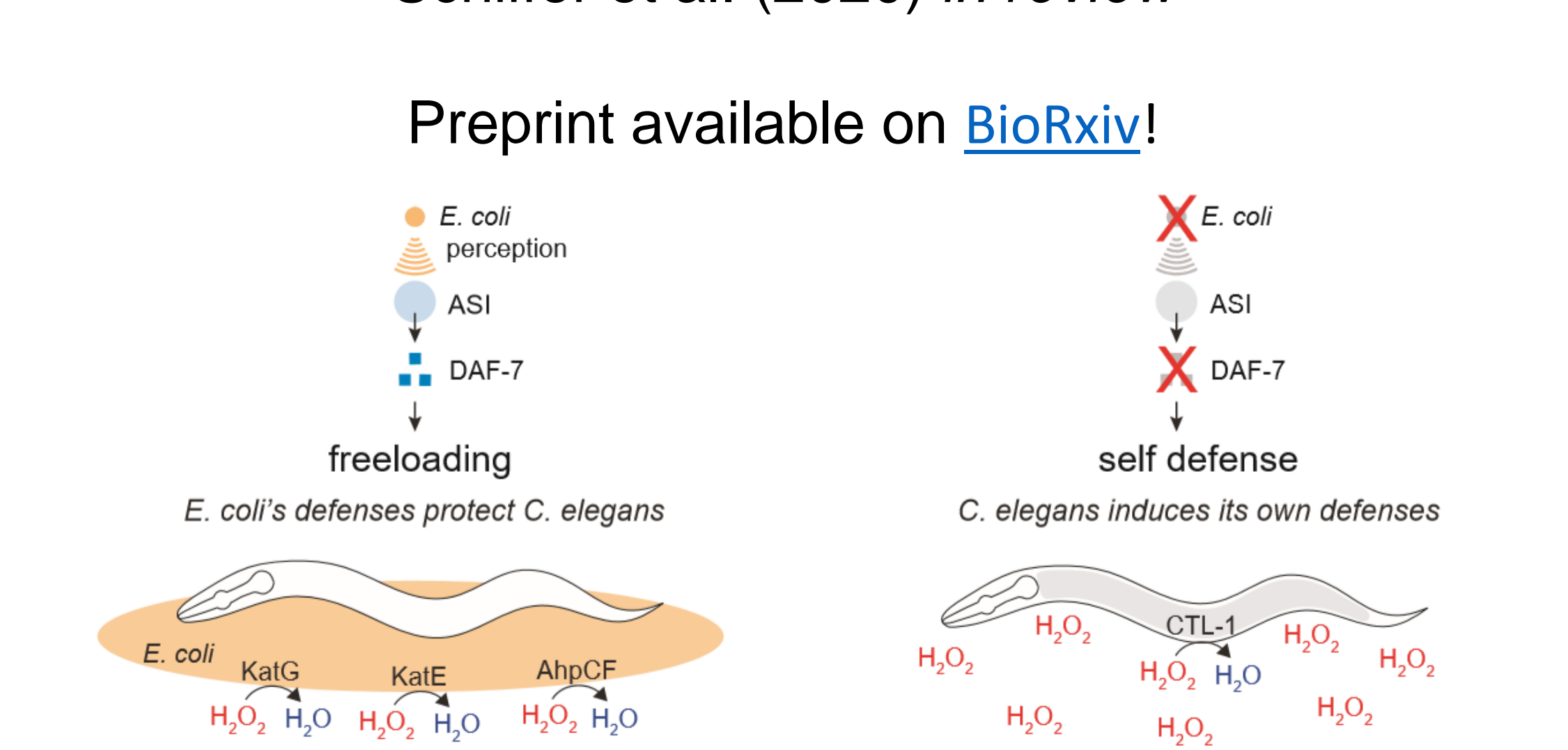
# Contact information

**Francesco Servello**  
 Email: [servello.f@northeastern.edu](mailto:servello.f@northeastern.edu)

**Javier Apfeld**  
 Email: [j.apfeld@northeastern.edu](mailto:j.apfeld@northeastern.edu)

# Check out some of our lab’s latest work!

*Caenorhabditis elegans* processes sensory information to choose between freeloading and self-defense strategies  
 Schiffer et al. (2020) *in review*



The SensorOverlord predicts the accuracy of measurements with ratiometric biosensors  
 Stanley et al. (2020) *in review*

