

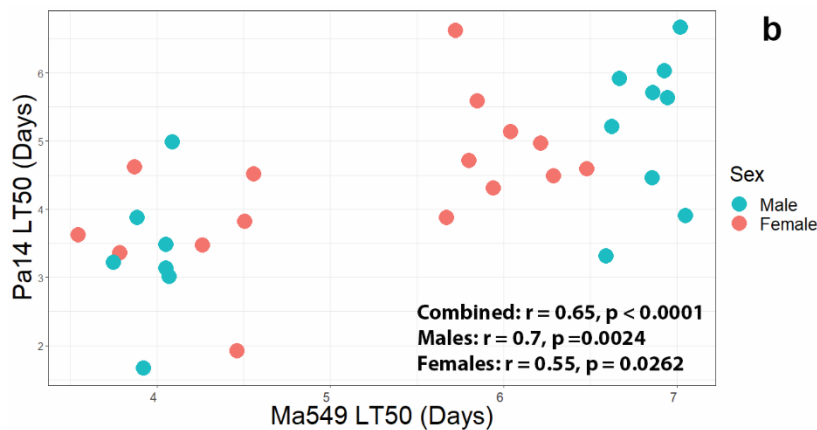
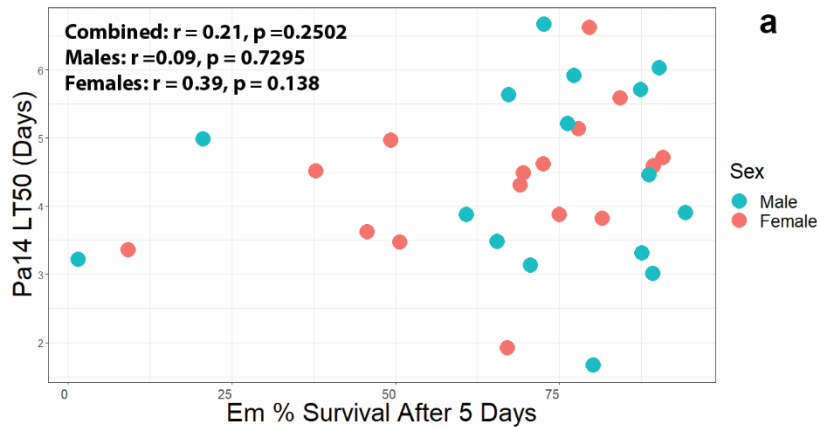
Title: Genetic variation for resistance to the specific fly pathogen *Entomophthora muscae*.

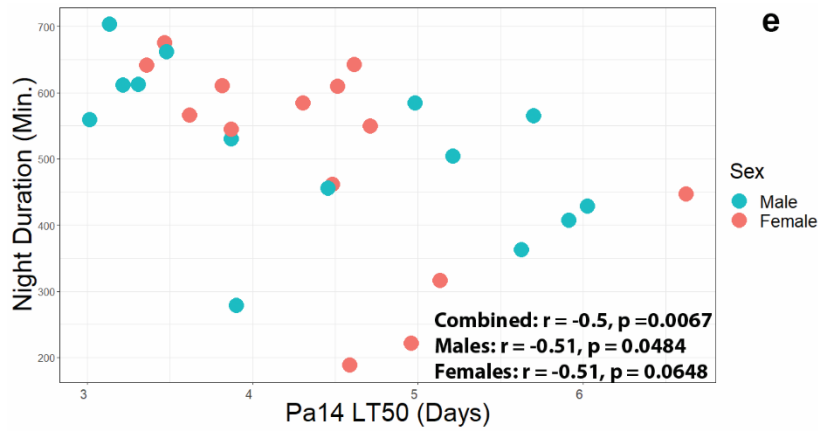
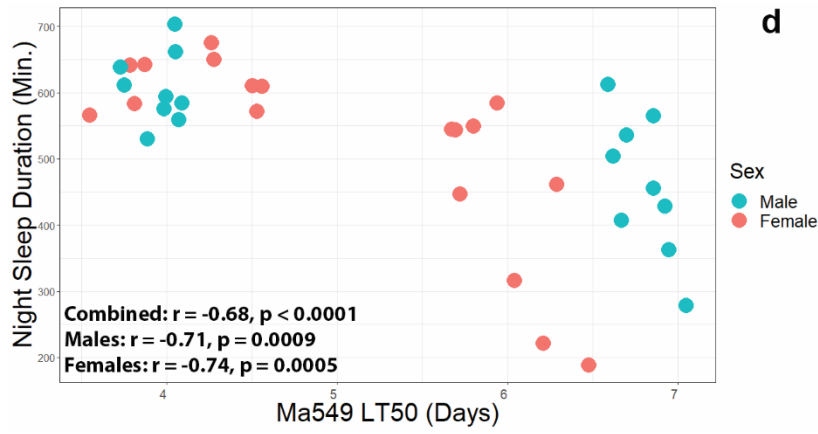
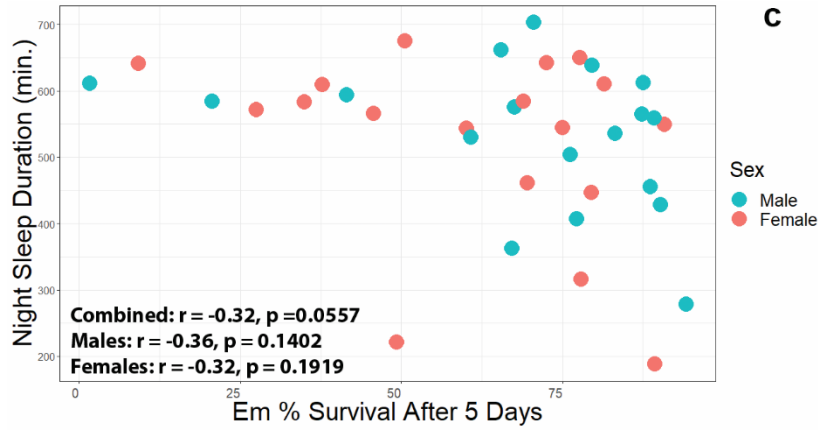
Jonathan B. Wang¹, Carolyn Elya², and Raymond J. St. Leger^{1*}

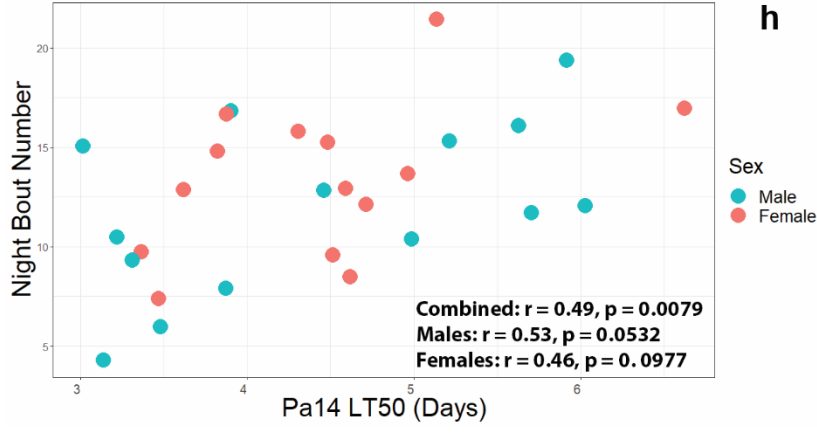
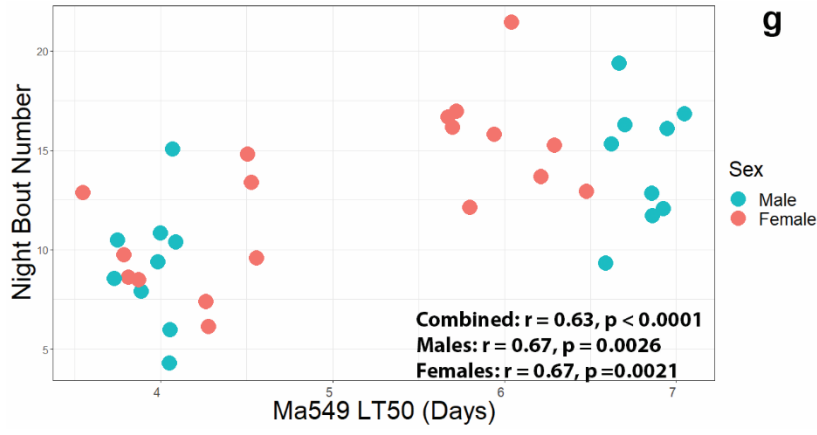
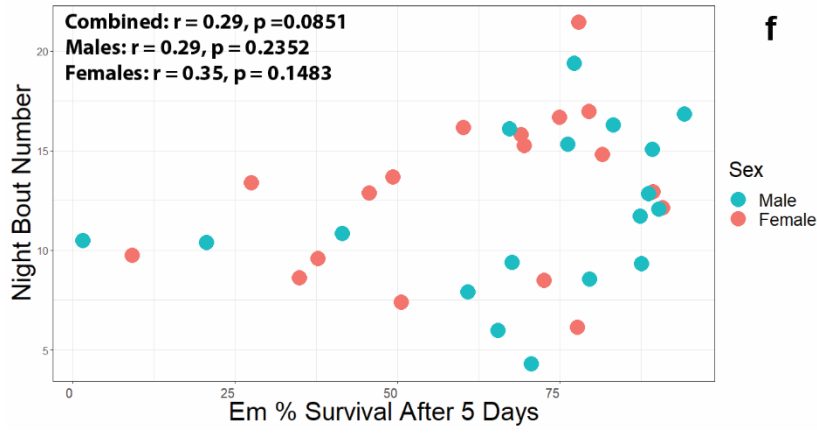
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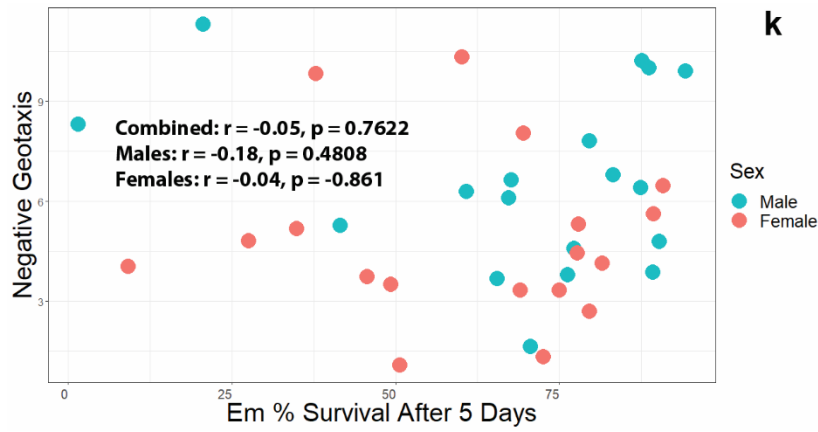
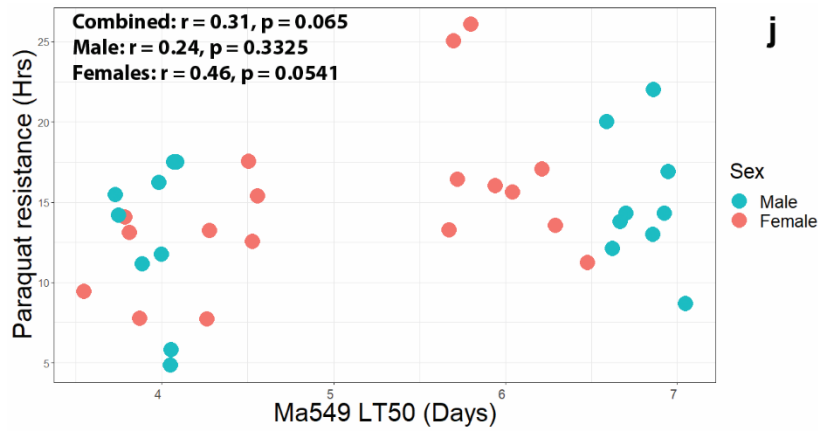
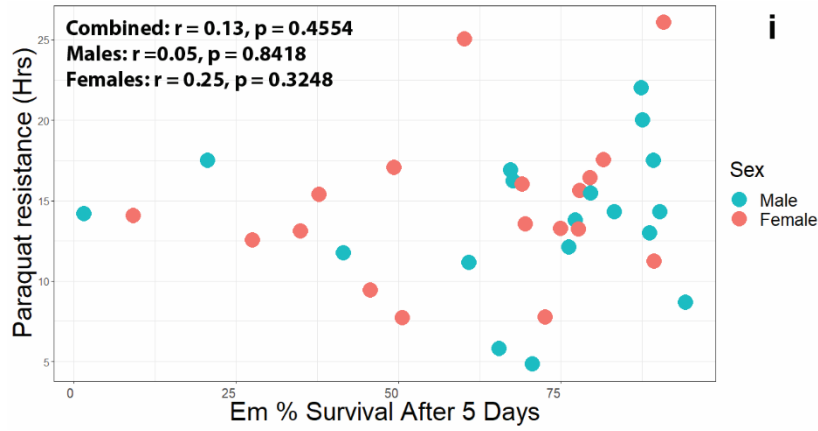
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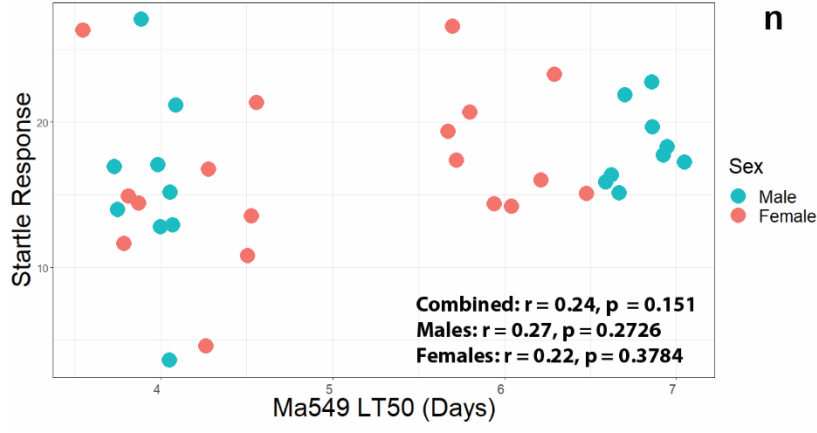
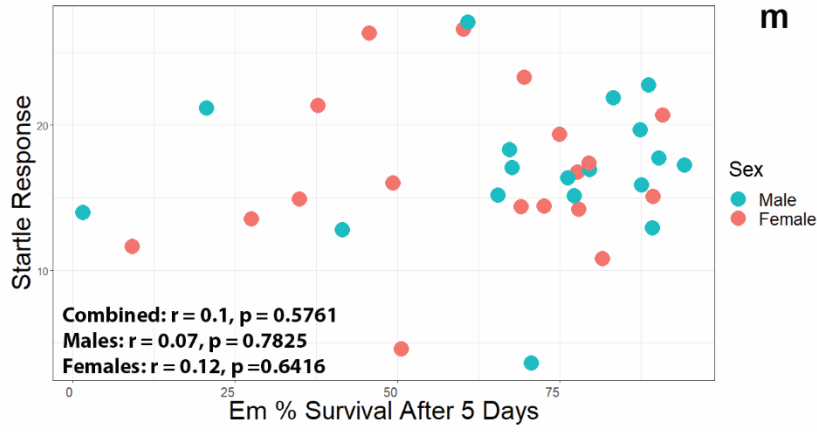
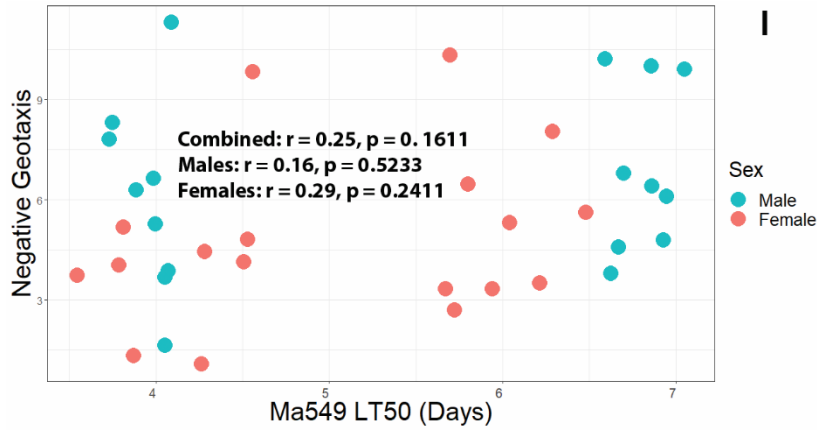
Supplementary Figures:

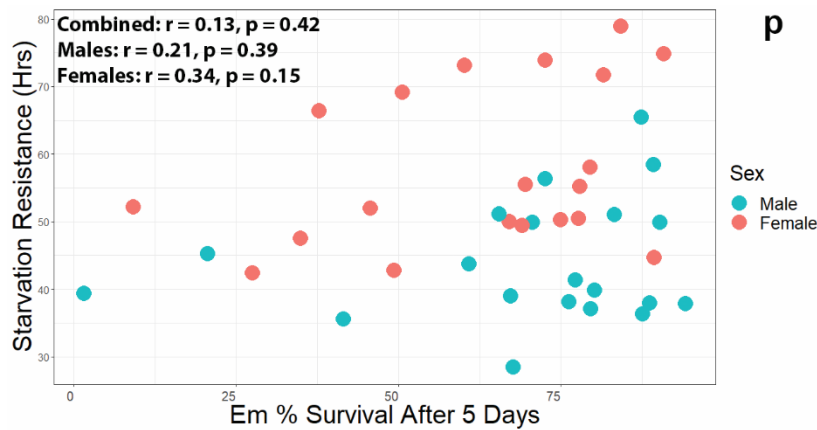
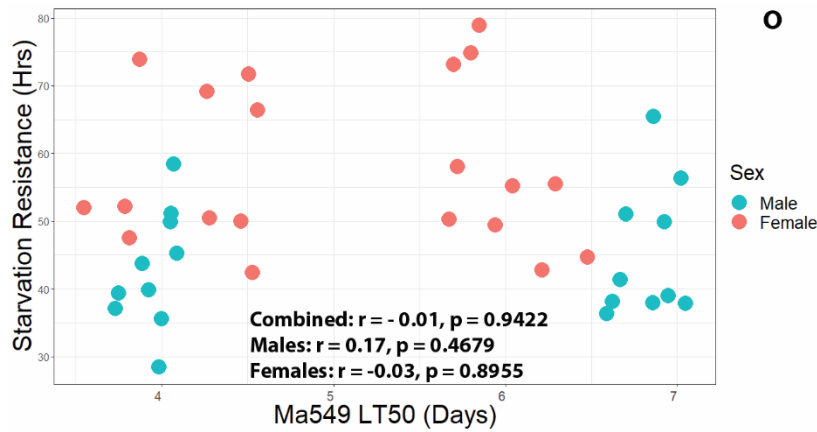




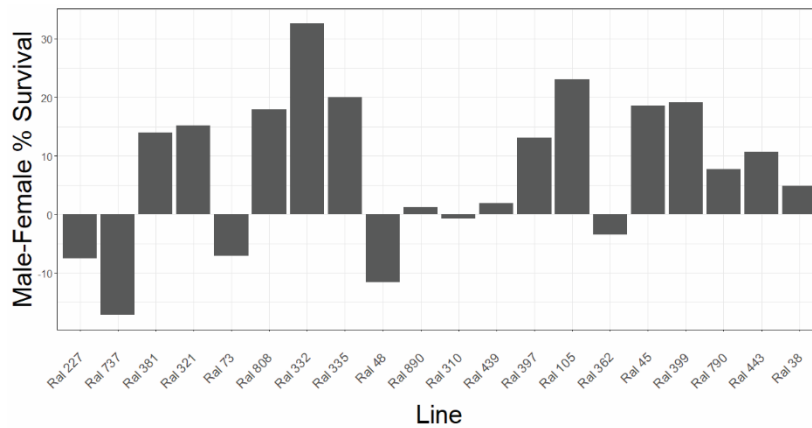








Supplementary Figure S1: Correlation graphs of phenotypes. (a) Positive correlation of % survival (5 days) among the DGRP lines between male and female flies infected with *E. muscae* and diverse phenotypes (b-p). *Pseudomonas aeruginosa* (Pa14) and Ma549 LT₅₀ values were obtained from Wang et al., 2017¹, sleep data from Harbison et al., 2014², paraquat resistance from Weber et al., 2012³, negative geotaxis and startle response data from Jordan et al., 2012⁴, and starvation data from Mackay et al., 2012⁵.



Supplementary Figure S2: Percent survival differences between male and female flies in DGRP lines infected by *E. muscae*. Flies were ordered (based on male percent survival) from the most susceptible (left) to the most resistant (right). Female percent survival was subtracted from male percent survival so positive values indicate lines where males are more resistant.

Supplementary References

1. Wang, J. B., Lu, H.-L. & St. Leger, R. J. The genetic basis for variation in resistance to infection in the *Drosophila melanogaster* genetic reference panel. *PLoS Pathog.* **13**, (2017). e1006260
2. Harbison, S. T., McCoy, L. J. & Mackay, T. F. C. Genome-wide association study of sleep in *Drosophila melanogaster*. *BMC Genomics* **14**, 281 (2013). doi:10.1186/1471-2164-14-281
3. Weber, A. L. *et al.* Genome-Wide Association Analysis of Oxidative Stress Resistance in *Drosophila melanogaster*. *PLoS One* **7**, e34745 (2012).
4. Jordan, K. W. *et al.* Genome-wide association for sensitivity to chronic oxidative stress in *Drosophila melanogaster*. *PLoS One* (2012). doi:10.1371/journal.pone.0038722
5. Mackay, T. F. C. *et al.* The *Drosophila melanogaster* Genetic Reference Panel. *Nature* **482**, 173–178 (2012).
6. Durham, M. F., Magwire, M. M., Stone, E. A. & Leips, J. Genome-wide analysis in *Drosophila* reveals age-specific effects of SNPs on fitness traits. *Nat. Commun.* **5**, 1-8 (2014).