

***Anopheles gambiae* larvae mount stronger immune responses against bacterial infection than adults: evidence of adaptive decoupling in mosquitoes**

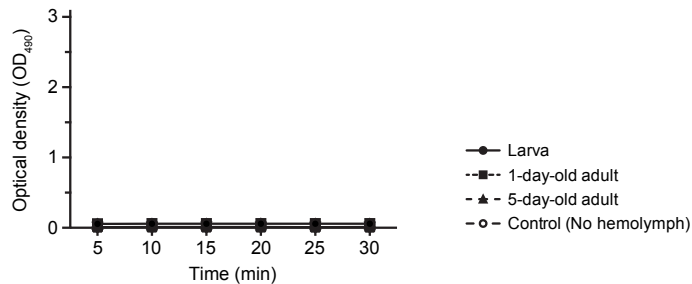
Garrett P. League, Tania Y. Estévez-Lao, Yan Yan, Valeria A. Garcia-Lopez, and Julián F. Hillyer

Department of Biological Sciences, Vanderbilt University, Nashville, TN, U.S.A.

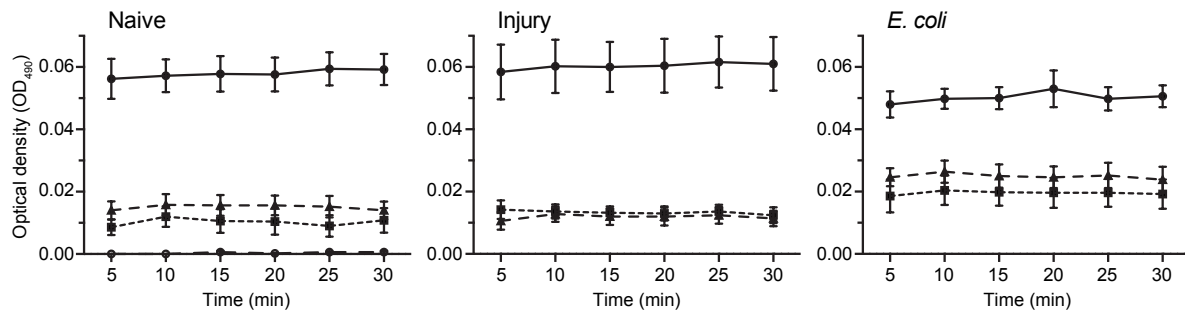
julian.hillyer@vanderbilt.edu

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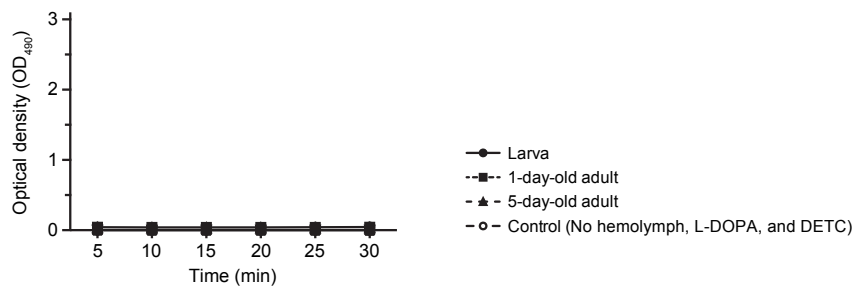
a No exogenous L-DOPA



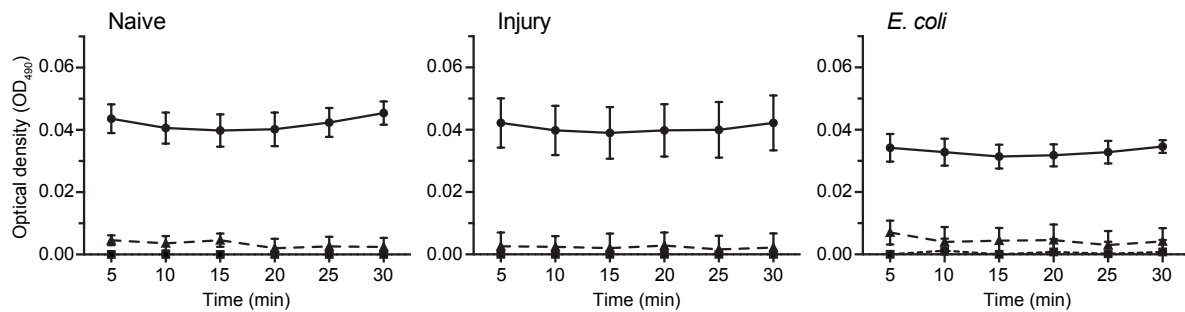
b No exogenous L-DOPA (amplified from panel A)



c L-DOPA with DETC



d L-DOPA with DETC (amplified from panel C)



Additional file 5: Figure S4. Endogenous melanization is highest in larvae, and exogenous melanization is completely inhibited by DETC. **a, b** Time course of optical density (OD₄₉₀) measurements of hemolymph from naïve, injured, and *E. coli*-infected larvae, 1-day-old adults and 5-day-old adults diluted in water. The scale in **a** is amplified and separated by treatment in **b**. Larval hemolymph was significantly darker than adult hemolymph (Šidák's: $P \leq 0.0086$ for all comparisons) and melanization levels did not change when comparing the initial and final readings of any age or treatment group (Šidák's: $P \geq 0.1690$ for all comparisons). **c, d** Time course of optical density (OD₄₉₀) measurements of hemolymph from naïve, injured, and *E. coli*-infected larvae, 1-day-old adults and 5-day-old adults diluted in saturated L-DOPA with DETC, which is a phenoloxidase inhibitor. The scale in **c** is amplified and separated by treatment in **d**. Larval hemolymph was significantly darker than adult hemolymph (Šidák's: $P \leq 0.0013$ for all comparisons) and melanization levels did not change from the initial to final readings of any age or treatment group (Šidák's: $P \geq 0.5840$ for all comparisons). Data were analyzed by two-way ANOVA, followed by Šidák's *post-hoc* test. Whiskers denote the SEM.