

GLYAT* regulates JNK-mediated cell death in *Drosophila

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Supplementary information

Ren et al., Fig. S1

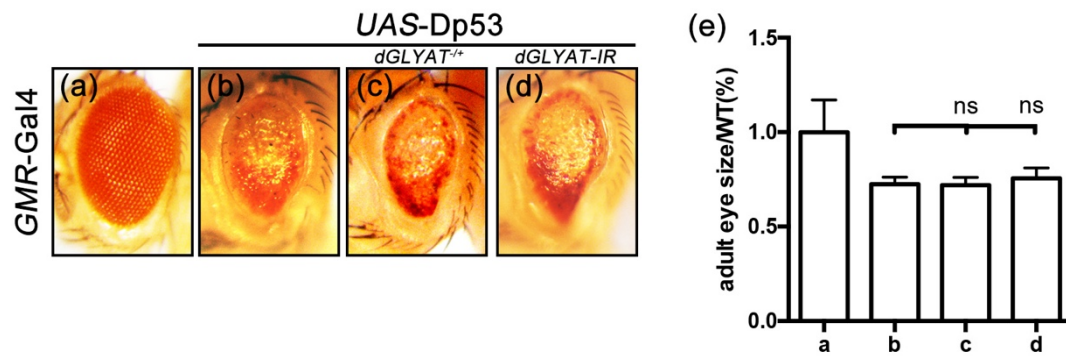


Figure S1 Loss of *dGLYAT* does not suppress caspase-mediated cell death.

Light micrographs of *Drosophila* adult eyes are shown. Compared with the *GMR*-Gal4 control (a), *GMR*>*Dp53* induces a small eye phenotype (b), which is not suppressed by mutation in *dGLYAT* (c) or expression of a *dGLYAT*-IR (d). (e) Statistics of the eye sizes shown in a-d (a, n=14; b, n=20; c, n=22; d, n=22). n.s., $P>0.05$.

Ren et al., Fig. S2

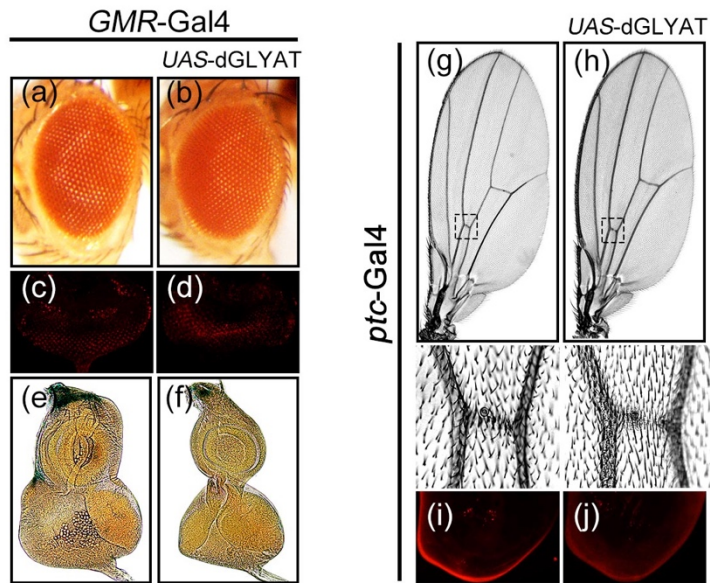


Figure S2 Expression of *dGLYAT* does not induce cell death and JNK activation.

Light micrographs of *Drosophila* adult eyes (a, b) and wings (g, h), and fluorescent micrographs of third instar eye (c, d) and wing (i, j) discs are shown. Compared with the *GMR*-Gal4 (a, c) or *ptc*-Gal4 (g, i) controls, expression of *dGLYAT* does not induces a small eye (b) or loss-of-ACV (h) phenotype in adults, or massive cell death in 3rd instar larval eye (d) or wing (j) discs. Compared with the *GMR*-Gal4 control (e), expression of *dGLYAT* does not induce *puc*-LacZ expression in eye discs (f).

Detailed Genotypes

Figure 1

- (a, g) *GMR-Gal4/+*
- (b, h) *UAS-Egr^{Regg1}/+; GMR-Gal4/+*
- (c, i) *UAS-Egr^{Regg1}/UAS-GFP; GMR-Gal4/+*
- (d, j) *UAS-Egr^{Regg1}/dGLYAT^{C02982}; GMR-Gal4/+*
- (e, k) *UAS-Egr^{Regg1}/+; GMR-Gal4/ UAS-dGLYAT-IR*
- (f, l) *UAS-Egr^{Regg1}/+; GMR-Gal4/ UAS-bsk-IR*

Figure 2

- (a, g) *GMR-Gal4/+*
- (b, h) *GMR-Gal4 UAS-Hep^{CA} UAS-bsk-IR/+*
- (c, i) *UAS-GFP/+; GMR-Gal4 UAS-Hep^{CA} UAS-bsk-IR/+*
- (d, j) *dGLYAT^{C02982}/+; GMR-Gal4 UAS-Hep^{CA} UAS-bsk-IR/+*
- (e, k) *GMR-Gal4 UAS-Hep^{CA} UAS-bsk-IR/ UAS-dGLYAT-IR*
- (f, l) *GMR-Gal4 UAS-Hep^{CA} UAS-bsk-IR/ UAS-bsk-IR*

Figure 3

- (a) *GMR-Gal4/+*
- (b) *GMR-Gal4 UAS-Egr/+; puc^{E69}/+*
- (c) *GMR-Gal4 UAS-Egr/ UAS-GFP; puc^{E69}/+*
- (d) *GMR-Gal4 UAS-Egr/ dGLYAT^{C02982}; puc^{E69}/+*
- (e) *GMR-Gal4 UAS-Egr/+; puc^{E69}/ UAS-dGLYAT-IR*
- (f) *GMR-Gal4 UAS-Egr/+; puc^{E69}/ UAS-bsk-IR*

Figure 4

- (a, g) *ptc-Gal4/+*
- (b, h) *ptc-Gal4 UAS-Egr/+; tub-Gal80^{ts}/+*

- (c, i) *ptc*-Gal4 *UAS*-Egr/ *UAS*-GFP; *tub*-Gal80^{ts}/+
- (d, j) *ptc*-Gal4 *UAS*-Egr/ *dGLYAT*^{C02982}; *tub*-Gal80^{ts}/+
- (e, k) *ptc*-Gal4 *UAS*-Egr/+; *tub*-Gal80^{ts}/ *UAS*-*dGLYAT*-IR
- (f, l) *ptc*-Gal4 *UAS*-Egr/+; *tub*-Gal80^{ts}/ *UAS*-*bsk*-IR

Figure 5

- (a, g) *ptc*-Gal4/+
- (b, h) *ptc*-Gal4 *UAS*-Hep/+; *puc*^{E69}/+
- (c, i) *ptc*-Gal4 *UAS*-Hep/ *UAS*-GFP; *puc*^{E69}/+
- (d, j) *ptc*-Gal4 *UAS*-Hep/ *dGLYAT*^{C02982}; *puc*^{E69}/+
- (e, k) *ptc*-Gal4 *UAS*-Hep/+; *puc*^{E69}/ *UAS*-*dGLYAT*-IR
- (f, l) *ptc*-Gal4 *UAS*-Hep/+; *puc*^{E69}/ *UAS*-*bsk*-IR

Figure 6

- (a) *ptc*-Gal4/+
- (b) *ptc*-Gal4 *UAS*-Hep/+; *puc*^{E69}/+
- (c) *ptc*-Gal4 *UAS*-Hep/ *UAS*-GFP; *puc*^{E69}/+
- (d) *ptc*-Gal4 *UAS*-Hep/ *dGLYAT*^{C02982}; *puc*^{E69}/+
- (e) *ptc*-Gal4 *UAS*-Hep/+; *puc*^{E69}/ *UAS*-*dGLYAT*-IR
- (f) *ptc*-Gal4 *UAS*-Hep/+; *puc*^{E69}/ *UAS*-*bsk*-IR

Figure 7

- (a) *ptc*-Gal4/+
- (b) *ptc*-Gal4 *UAS*-*puc*-IR/+
- (c) *ptc*-Gal4 *UAS*-*puc*-IR/ *UAS*-GFP
- (d) *ptc*-Gal4 *UAS*-*puc*-IR/+; *UAS*-*dGLYAT*-IR/+

Figure 8

- (a) *ptc*-Gal4/+
- (b) *ptc*-Gal4/+; *UAS-lgl-IR*/+
- (c) *ptc*-Gal4/ *dGLYAT*^{C02982}; *UAS-lgl-IR*/+
- (d) *ptc*-Gal4/+; *UAS-lgl-IR*/ *UAS-dGLYAT-IR*

Figure 9

- (a) *GMR*-Gal4/+
- (b) *UAS-Egr*^{Regg1}/+; *GMR*-Gal4/+
- (c) *UAS-Egr*^{Regg1}/ *dGLYAT*^{C02982}; *GMR*-Gal4/+
- (d) *UAS-Egr*^{Regg1}/+; *GMR*-Gal4/ *UAS-dGLYAT-IR*

Figure S1

- (a) *GMR*-Gal4/+
- (b) *GMR*-Gal4 *UAS-Dp53*/+
- (c) *GMR*-Gal4 *UAS-Dp53*/ *dGLYAT*^{C02982}
- (d) *GMR*-Gal4 *UAS-Dp53*/+; *UAS-dGLYAT-IR*/+

Figure S2

- (a, c) *GMR*-Gal4/+
- (b, d) *GMR*-Gal4/ *UAS-dGLYAT*
- (e) *GMR*-Gal4/+
- (f) *GMR*-Gal4/ *UAS-dGLYAT*; *puc*^{E69}/+
- (g, i) *ptc*-Gal4/+
- (h, j) *ptc*-Gal4/ *UAS-dGLYAT*