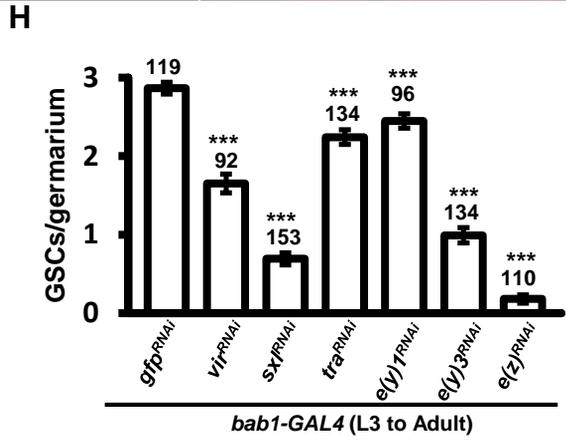
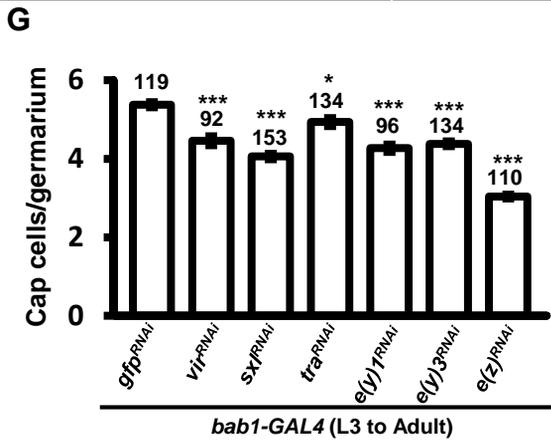
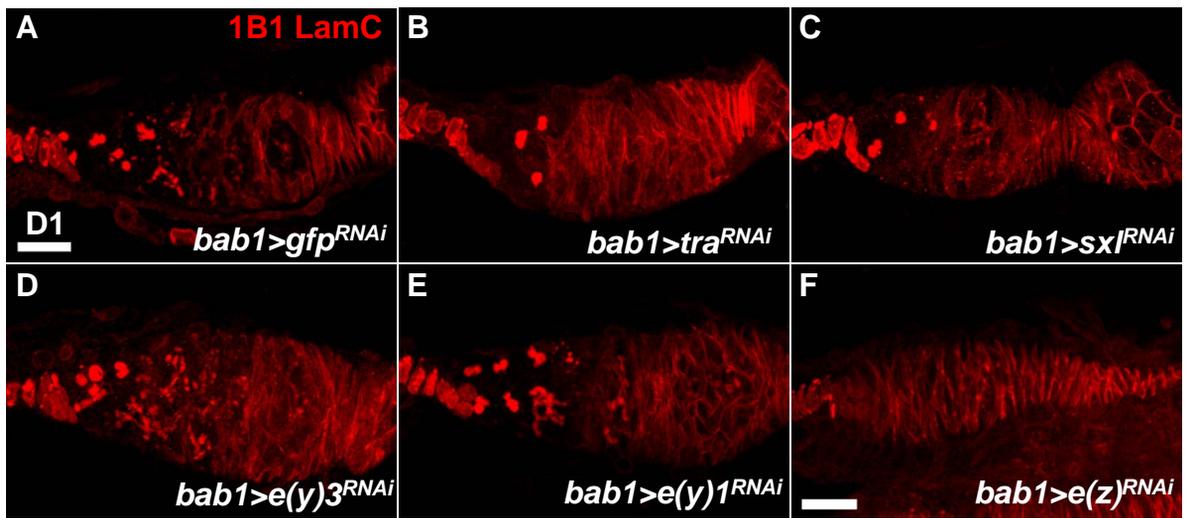


Supplementary Fig. 1



Supplementary Fig. 2

SUPPLEMENTARY FIGURE LEGENDS

Supplementary Fig. 1 Insulin signaling functions in the developing soma to affect niche cap cell and GSC numbers, ovary size and egg production in the adult. (A)

An egg laying assay was performed on 2-day (D)-old *GAL4* control (ctrl), *UAS* control and *bab1>dinr^{RNAi}* females for two weeks. **(B and C)** Two-day-old *GAL4* control (B) and *bab1>dinr^{RNAi}* ovaries (C) are shown. **(D and E)** One-day-old *GAL4* control (D) and *bab1>dinr^{RNAi}* (E) germaria were stained for LamC (green, terminal filament and cap cell nuclear envelopes) and 1B1 (green, fusomes). **(F and G)** GSC (F) and cap cell (CpC) numbers in newly eclosed females. Number of germaria analyzed are shown above each bar. *** $P < 0.001$. Dashed circles outline GSCs. *RNAi* was expressed throughout developmental stages (whole stage) at 29 °C. Scale bar in B is 50 μ m, in D is 10 μ m. The genotype of the *UAS* control is *UAS-dinr^{RNAi}/+* and the *GAL4* control is *bab1-GAL4/+*.

Supplementary Fig. 2 Knockdown of *vir*, *tra*, *sxl*, *e(y)1*, *e(y)3* and *e(z)* in the soma

from the L3 to adult stage results in niche cap cell and GSC loss. (A-F) One-day-old germaria, expressing *RNAi* against *gfp*, *vir*, *tra*, *sxl*, *e(y)1*, *e(y)3* or *e(z)* by *bab1-GAL4*, were stained for 1B1 (red, fusomes) and LamC (red, terminal filament and cap cell nuclear envelopes). **(G and H)** Average number of niche cap cells (G) and GSCs (H) in the germarium were calculated. Number of germaria analyzed are shown above

each bar. * $P < 0.05$, *** $P < 0.001$. Error bar, SEM. Scale bar, 10 μm .