



FigureS3 Germline specific RNAi depletion of Mrg15 leads to polytene unpairing defects. DNA FISH probes to chromosome 2L (green spots) and X-chromosome (red spots) in representative stage 10 eggchambers (DAPI in blue). Note that the unpairing defect was too severe in earlier stages and thus made quantitation of individual spots difficult. Panels A-C are control *Mata4-GAL-VP16* and panels D-E are *Mata4-GAL-VP16, Mrg15-TRiP-GL00128* RNAi depleted tissues (see methods). Panel F, number of FISH spots per nucleus were counted manually in 3D images for 3 different stage 10 eggchambers, and average number of spots is shown with standard error of the mean (two-tailed T-test, assuming unequal variance was calculated using MS Excel $*p < 10^{-6}$; $**p < 10^{-8}$). For 2L-probes $n=17$ (control) and $n=18$ (Mrg15 RNAi) nuclei. For X-probes $n=16$ (control) and $n=16$ (Mrg15 RNAi) nuclei. Images acquired with a Nikon laser scanning confocal with a 40x oil immersion lens (see methods), and 2D projections of a limited number of z-optical sections are shown. Scale bars are 50 μ m in each panel. See Figure 6 of main text for higher magnification images of individual stage 10 nuclei with FISH signals.