

Supplemental Data

Supplemental figures and figure legends

Figure S1

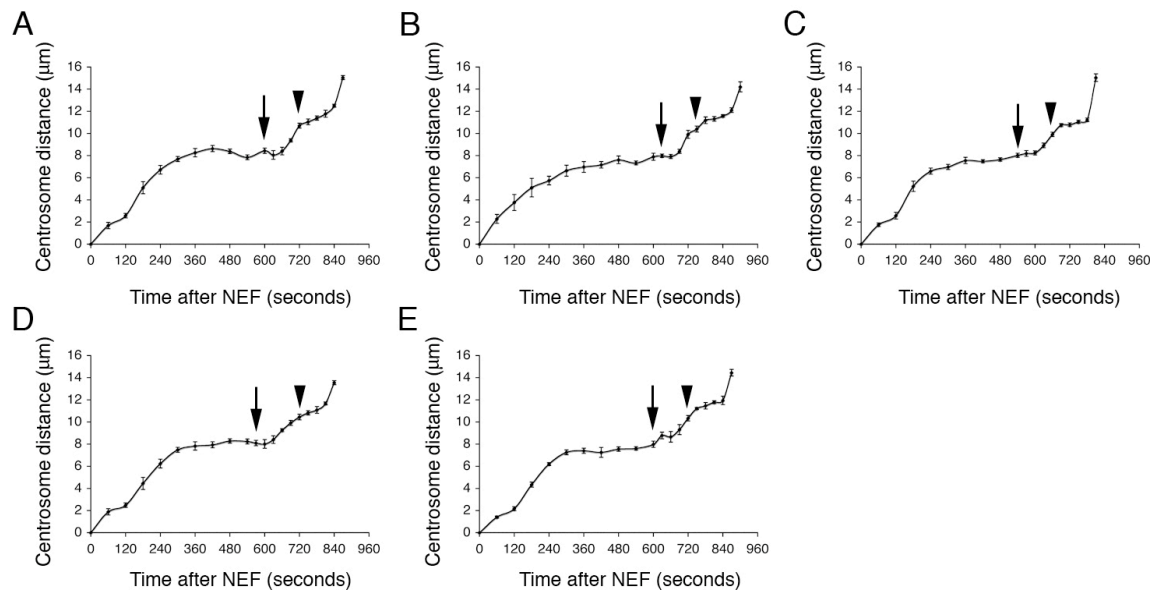


Figure S1. **Measurements of centrosome pair distances during nuclear cycle 12 in uninjected GFP-Tubulin embryos, related to Figure 1.** (A-E) Time zero represents NEF. Arrows indicate the time of NEB. Arrowheads indicate the time point before initiation of anaphase A. These five graphs represent measurements from five different embryos. Standard errors are calculated from the variance of nuclei (n=4 centrosome pairs per embryo) within each embryo.

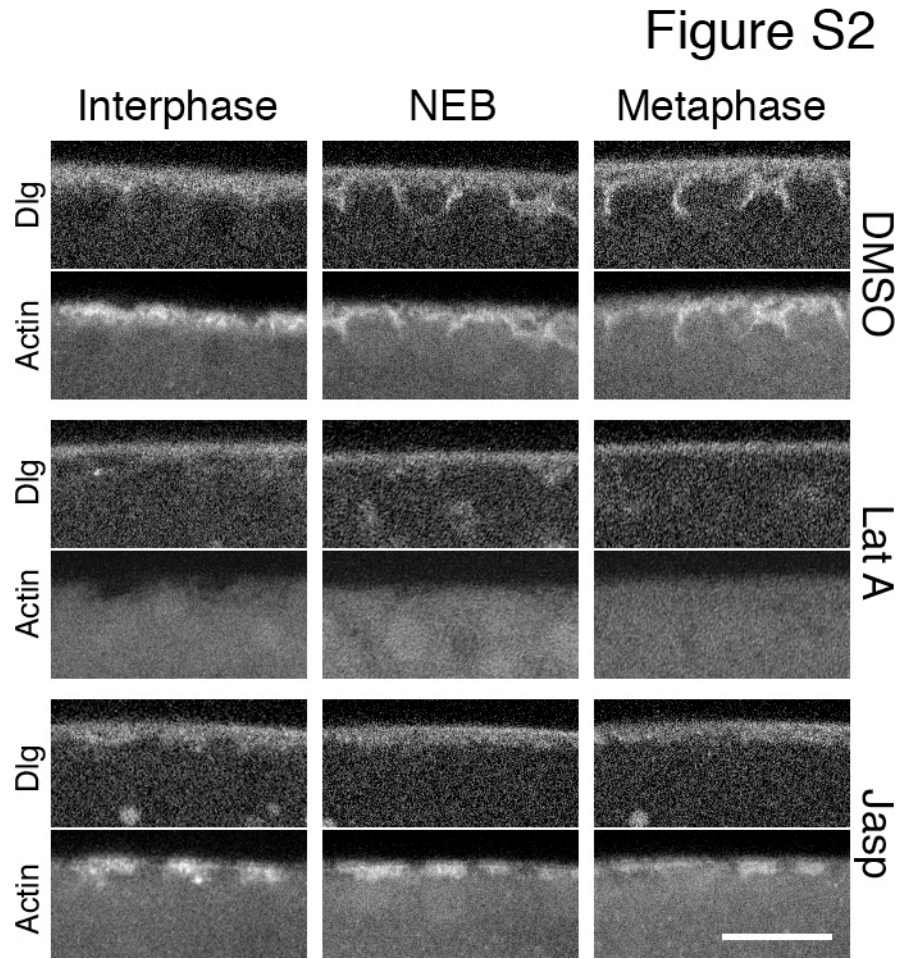


Figure S2. **The effects of LatA and Jasp on actin cap expansion and furrow invagination, related to Figure 3.** 1mM Jasp, 10mM LatA, or DMSO control were injected into GFP-Dlg embryos, which have been previously injected with Rhodamine-actin, at anaphase of cycle 11. Furrow invagination and actin distribution were imaged during cycle 12. Scale bar: 20 μ m.

Figure S3

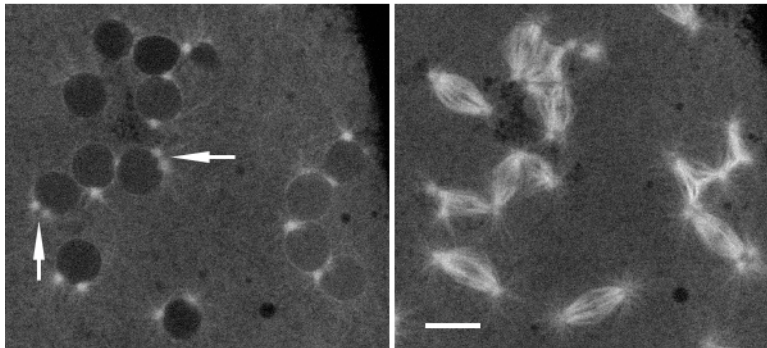


Figure S3. **Clustering of nuclei in LatA injected embryos produces secondary centrosome phenotypes, related to Figure 2.** GFP-Tubulin embryos injected with 10mM LatA during late anaphase of cycle 11. Arrows indicate centrosomes that prematurely stop migrating after nuclear collision. Note the multipolar spindle formed between these nuclei. Scale bar: 10 μ m.

Supplemental movie legends

Movie S1. **Centrosome separation and spindle formation in wildtype embryos expressing GFP-Tub, related to Figure 2.** Frames were acquired every 30s from cycle-12 NEF to cycle-13 NEF. Playback rate: six frames per second.

Movie S2. **LatA injection strongly inhibits centrosome separation before NEB, related to Figure 2.** LatA was injected at cycle-11 anaphase into GFP-Tub embryos. Frames were acquired every 30s from cycle-12 NEF to cycle-13 NEF. Playback rate: six frames per second.

Movie S3. **Jasp injection strongly inhibits centrosome separation before NEB, related to Figure 2.** Jasp was injected at cycle-11 anaphase into GFP-Tub embryos. Frames were acquired every 30s from cycle-12 NEF to cycle-13 NEF. Playback rate: six frames per second.

Movie S4. **Actin cap expansion in wildtype embryos expressing GFP-Moesin, related to Figure 3.** Frames were acquired every 30s from NEF to NEB during cycle 12. Playback rate: six frames per second.

Movie S5. **Jasp injection results in failed actin cap expansion, related to Figure 3.** Jasp was injected at cycle-11 anaphase into GFP-Moesin embryos. Frames were acquired every 30s from NEF to NEB during cycle 12. Playback rate: six frames per second.