Supplementary Materials

Molecular Biology of the Cell

Baldwin et al.

Supplementary Figure 1. Quantification of the lengths of F-actin bundles and apical surface areas reveals an inverse correlation. Early versus late constriction stage for each embryo was determined by the average apical surface of presumptive bottle cells in each embryo (greater than or less than 50 square microns). Each point represents a length measurement of one actin bundle. Points are color-coded by embryo. Horizontal lines within each violin delineate quartiles along each distribution. P-value was calculated via KS test. Data were collected from 5 early and 4 late stage embryos.

Supplementary Figure 2. *plekhg5* is expressed in a salt-and-pepper fashion in cells within the blastopore lip. Early, mid- and late gastrula embryos (left to right panels) were subjected to *in situ* hybridization study for pattern of *plekhg5* expression. Though *plekhg5* transcripts are seen to spread from dorsal to lateral and ventral regions of the blastopore lip, not all the cells at the blastopore lip express *plekhg5*. Instead, salt-and-pepper expression among blastopore lip cells is observed.



