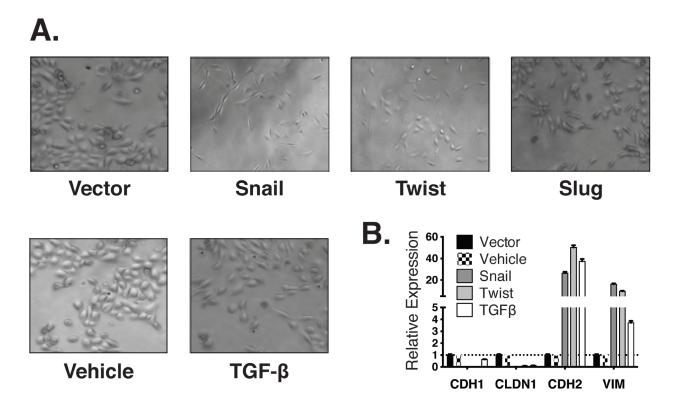
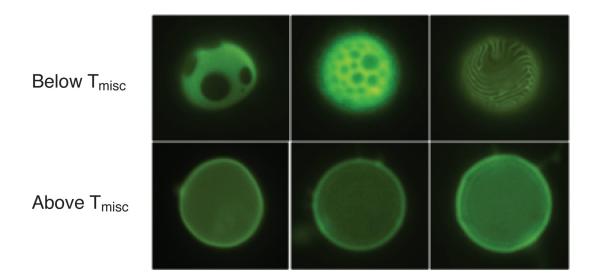
## Motility and stem cell properties induced by the epithelialmesenchymal transition require destabilization of lipid rafts

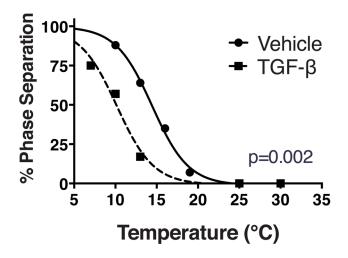
## SUPPLEMENTARY FIGURES AND TABLE

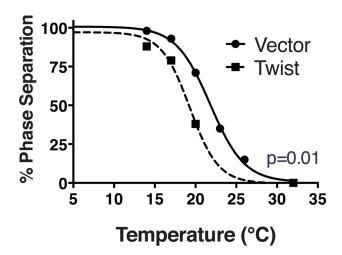


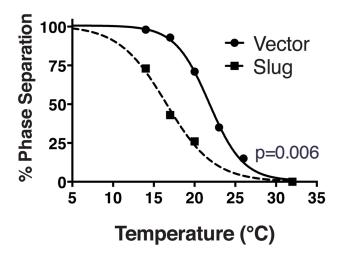
Supplementary Figure S1: EMT can be induced by a range of mechanisms. A. Brightfield images show the morphology of HMLE cells after ectopic expression of EMT inducers Snail, Twist, or Slug; or one week treatment with TGF- $\beta$ . B. The gene expression values (y-axis) for epithelial (CDH1, CLDN1) and mesenchymal (CDH2, VIM) are measured by RT-QPCR in HMLE cells before and after induction of an EMT. All gene expression changes are significant with p < 0.05 when compared to the appropriate Vector or Vehicle control.



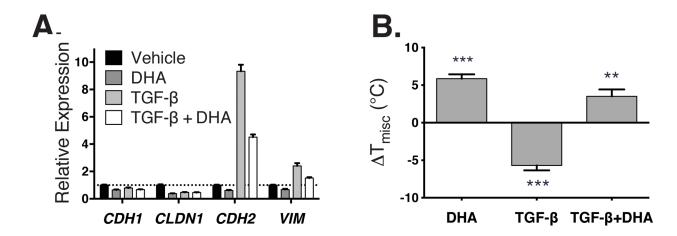
**Supplementary Figure S2: Distinct patterns of phase separation in GPMVs.** GPMVs show clear phase separation above  $T_{mise}$ , and no separation below it.







**Supplementary Figure S3: EMT inducers destabilize phase separation.** These plots show the relationship between the stability of phase separation (y-axis) across temperature (x-axis) for EMT inducers TGF- $\beta$ , Twist, or Slug.



Supplementary Figure S4: DHA treatment maintains a mesenchymal state while reversing raft stability. A. The gene expression values (y-axis) for epithelial (CDH1, CLDN1) and mesenchymal (CDH2, VIM) are measured by RT-QPCR in HMLE cells treated with a vehicle control (*Vehicle*), 20 μM DHA (*DHA*), 2.5 ng/mL TGF-β (*TGF-β*), or both TGF-β and DHA (*TGF-β+ DHA*). All expression values differ from the Vehicle control with p < 0.05. B. The raft stability (y-axis) for the treatments is shown after normalization to the Vehicle condition.

Supplementary Table S1: GSEA analysis identifies pathways enriched in an EMT with FDR=0

See Supplementary File 1