

## INVENTORY OF SUPPLEMENTAL INFORMATION

**Figure S1.** Visualization and characterization of nascent CL4 cell microvilli.

**Supplemental Video 1.** Nascent microvilli protrude from the cell surface are wrapped in membrane.

**Supplemental Video 2.** Microvilli move across the cell surface.

**Supplemental Video 3.** Microvillar motility requires actin assembly but not myosin contractility.

**Supplemental Video 4.** Microvillar F-actin core treadmills during microvillar motility.

**Supplemental Video 5.** Microvillar translocation drives intermicrovillar collision facilitating cluster formation.

**Supplemental Video 6.** Microvillar translocation drives collision and clustering of individual microvilli.

**Supplemental Video 7.** Large clusters of microvilli move across the cell surface.

**Figure S1**