

Supplemental Figure Legends

Supplemental Video S1. Expanding root epidermal cell expressing DRP1A-GFP imaged with VAEM. Speed is 5X real time.

Supplemental Video S2. Root epidermal cell expressing DRP1A-GFP grown on 10 $\mu\text{g}/\text{mL}$ fenpropimorph, a sterol synthesis inhibitor. Roots were immersed in $\frac{1}{2}$ MS for imaging with VAEM. Speed is 5X real time.

Supplemental Video S3. Expanding root epidermal cell expressing DRP1A-mOrange and DRP1C-GFP imaged with VAEM. Speed is 5X real time.

Supplemental Video S4. Expanding root epidermal cell expressing DRP1A-mOrange and CLC-GFP imaged with VAEM. Speed is 5X real time.