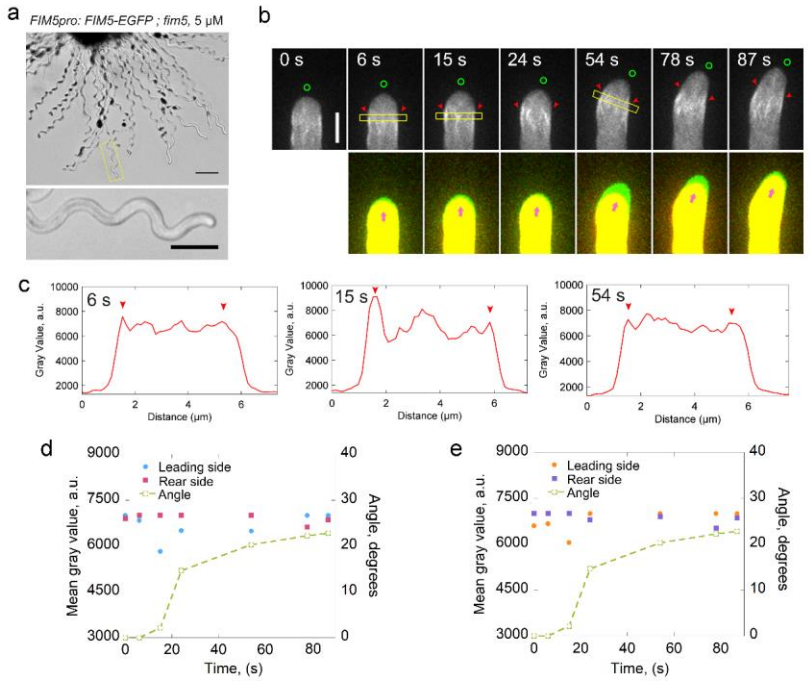

Fig S3. Monitoring the dynamics of apical actin filaments decorated with FIM5-EGFP in the pollen tube during turning

(**a**) Images of *FIM5pro: FIM5-EGFP; fim5* pollen tubes growing semi-*in vitro*. Pollen tubes were grown in the presence of 5 μM AtLURE1.2 peptides, which served as an attractive stimulus. Scale bars, 50 μm (top) and 20 μm (bottom). The micrographs are representative of three samples.

(**b**) Time-lapse images captured the dynamics of FIM5-EGFP during the AtLURE1.2-induced turning of a semi-*in vitro* grown *FIM5pro: FIM5-EGFP; fim5* pollen tube. Pollen tube growth direction was indicated by green circles in the upper panel, while the direction of turning was shown by pink arrowheads in the lower panel. Notably, the apical actin structure labeled by FIM5-EGFP could be clearly observed**,** as indicated by red arrowheads. Scale bar, 5 μm.

(**c**) Quantification of the fluorescence intensity of apical FIM5-EGFP within the yellow boxed square shown in (b). The peaks of fluorescence are indicated by red arrowheads, providing a quantitative representation of the actin filament dynamics.

(**d**, **e**) Quantification of the level of actin filaments in pollen tubes over time during turning. The fluorescence intensity of the pollen tube in (**b**) was measured on both sides within specific regions. Specifically, the intensity was measured within the region 3.5 to 4.5 μm (**d**) and 2.5 to 3.5 μm (**e**) away from the tip.