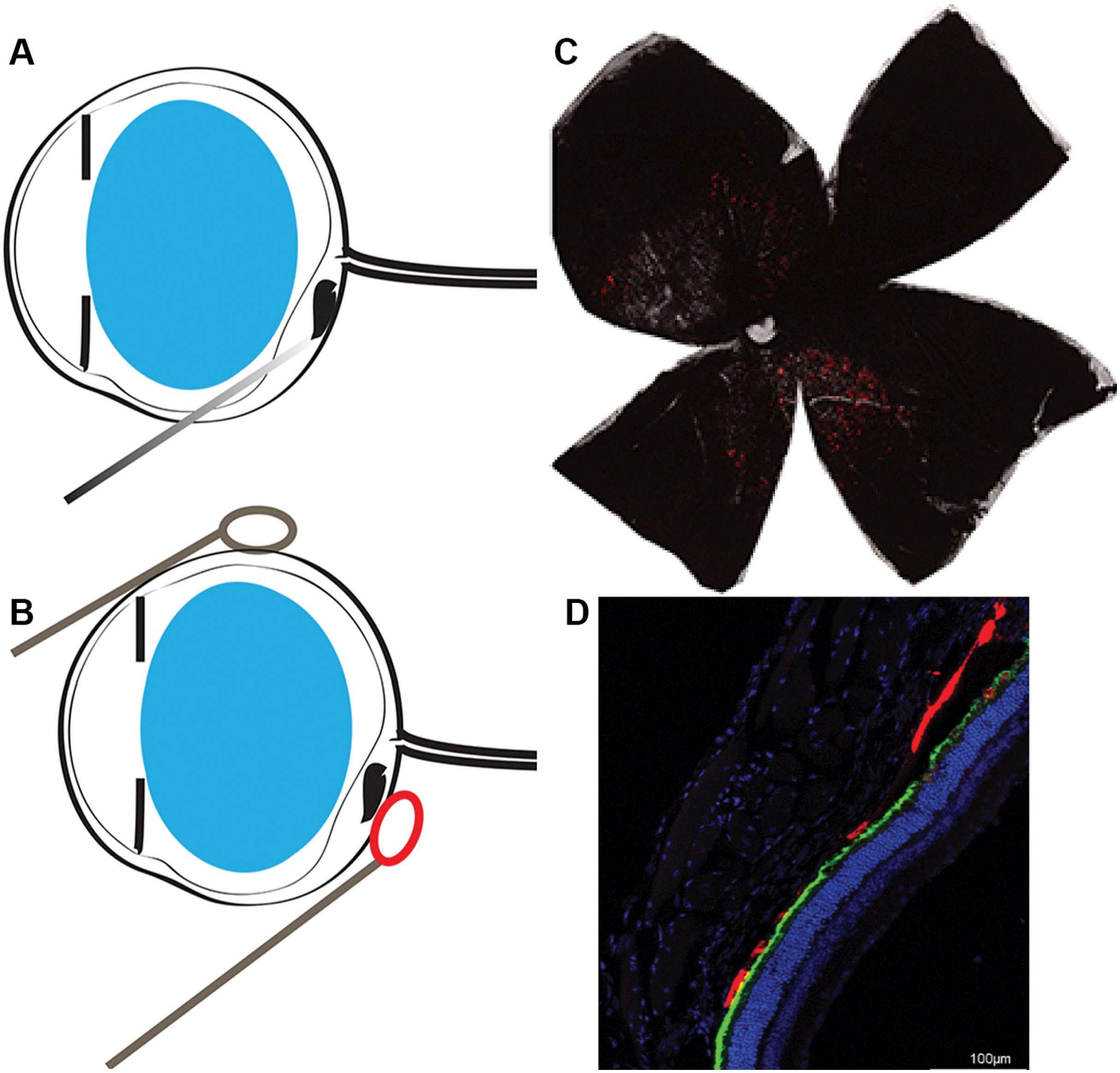
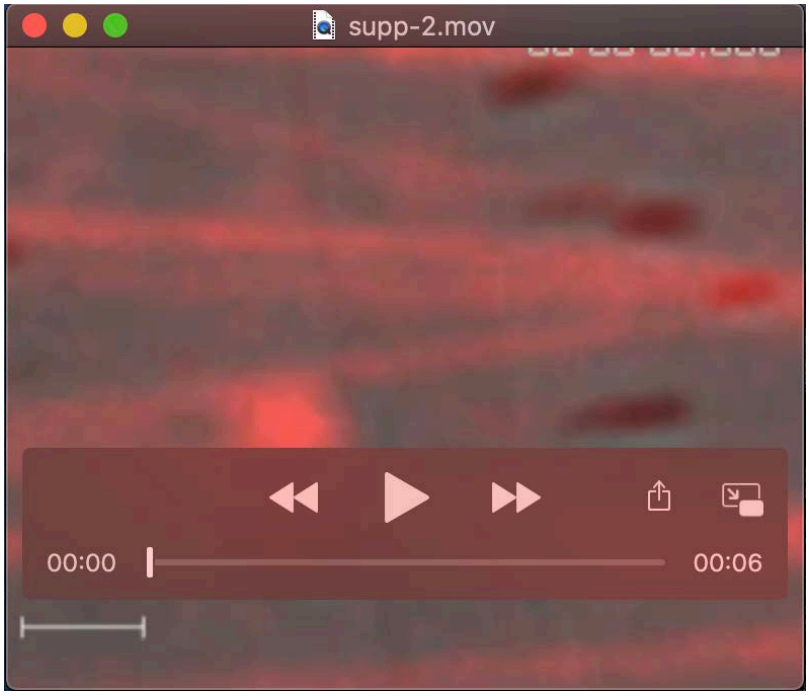
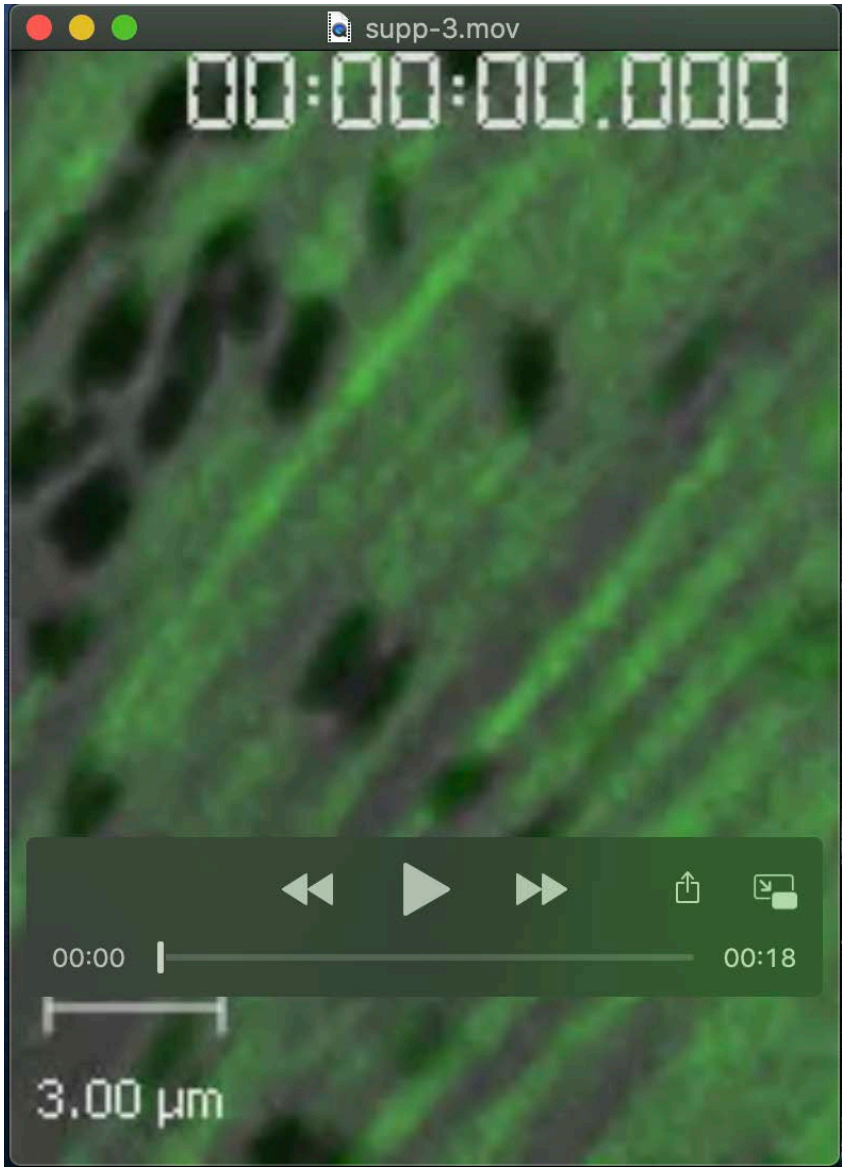


Figure S1.
Subretinal injection and electroporation of vectors expressing DYNC1H1 sh RNA or scrambled sh RNA. Schematic illustration of (A) subretinal injection, and, (B) electroporation. (C) Fluorescence microscope image of a retinal whole-mount. Red, DYNC1H1 shRNA-mCherry. (D) Representative cryosection, labeled with RHO antibodies to indicate photoreceptor outer segments (green), from an electroporated eye, injected with DYNC1H1shRNA-mCherry (red).

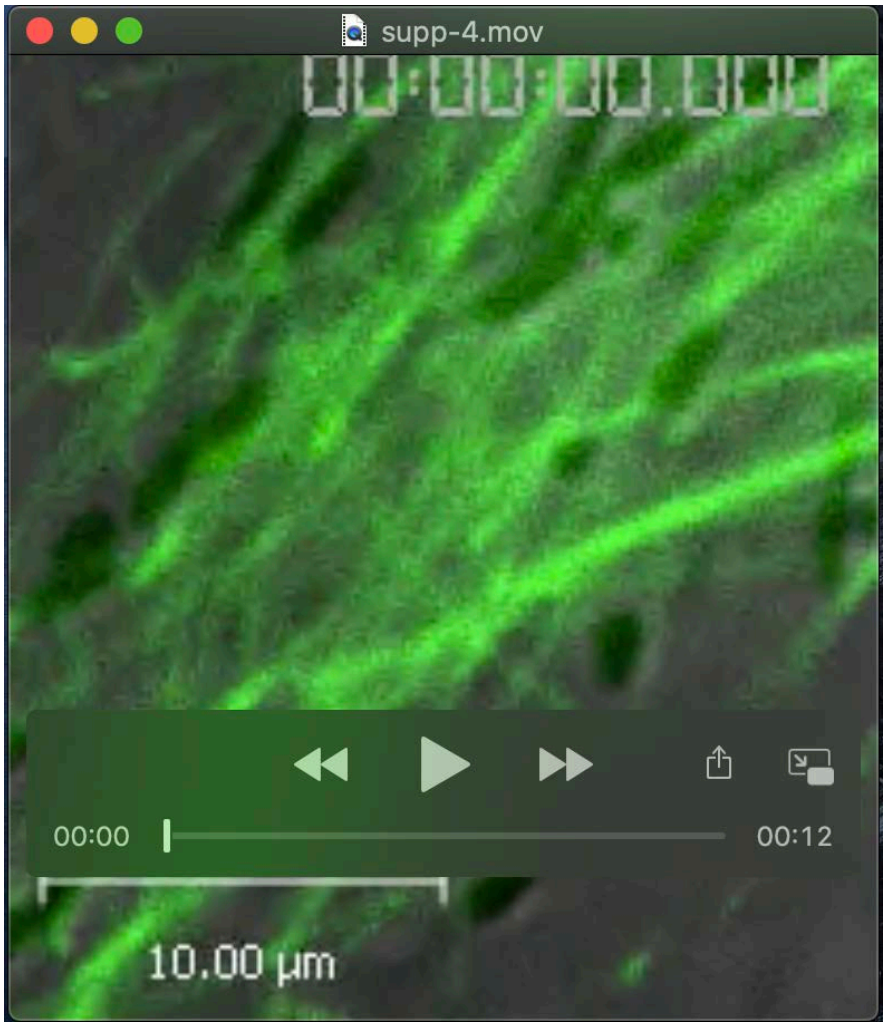


Movie 1. Movements of melanosomes along actin in an RPE cell. Cultured WT primary mouse RPE cells transduced with CellLight actin-RFP. Single z-plane images were collected by a spinning disk confocal microscope at 2 frames per second for 30 seconds. The playback rate of the movie is 10 frames per second (i.e. 5x real speed). Scale = 2 μm.

Journal of Cell Science • Supplementary information



Movie 2. Movements of melanosomes along actin in an RPE cell. Cultured WT primary mouse RPE cells transfected with F-tractin-GFP. Single z-plane images were collected by a spinning disk confocal microscope at 2 frames per sec for 3 minutes. The playback rate of the movie is 20 frames per second (i.e. 10x real speed). Scale = 3 µm.



Movie 3. Movements of melanosomes along microtubules in an RPE cell. Cultured primary shaker1 mouse RPE cells (*Myo7a*-null) were transfected to express EB3-EGFP. While the EB3-EGFP labels most of each microtubule, it is concentrated more at the plus end. Single z-plane images were collected by a spinning disk confocal microscope at 2 frames per second for 1 minute. The playback rate of the movie is 10 frames per second (i.e. 5x real speed). Scale = 10 µm.