

Lei et al. Inhibition or stimulation of autophagy affects early formation of lipofuscin-like material in the RPE cell.

Supplementary Information

**Supplementary Movie 1.** Live cell imaging of ARPE-19 cells (control).

Oblique view of a 3-dimensional representation of the imaged area with the z stacks aligned so that the top surface is closest to the viewer. The time-lapse sequence of image acquisition is presented at 1 frame per second (the acquisition time between frames is ~ 30 min). PBS was added after the first frame. For a 2-dimensional representation of the first and the last frames, see Fig. 2 in the main text.

**Supplementary Movie 2.** Live cell imaging of ARPE-19 cells treated with Rapamycin. Same representation as in Supplementary Movie 1. Rapamycin was added after the first frame. For a 2-dimensional representation of the first and the last frames, see Fig. 2 in the main text.