Supplemental Movie Legends

**Supplemental movie 1. MSCs induced to undergo condensation.** Bright field, time-lapse video microscopy was used to image MSCs for 16 hours after induction of chondrogenesis. One frame was captured every 10 min. Movie is a compilation of every sixth frame.

**Supplemental movie 2. MSCs undergoing condensation in presence of III-11C peptide.** Bright field, time-lapse video microscopy was used to image MSCs for 16 hours after induction of chondrogenesis in the presence of 0.33 µM III-11C control peptide. One frame was captured every 10 min. Movie is a compilation of every sixth frame.

**Supplemental movie 3. MSCs undergoing condensation in presence of FUD peptide.** Bright field, time-lapse video microscopy was used to image MSCs for 16 hours after induction of chondrogenesis in the presence of 0.33 µM FUD peptide. One frame was captured every 10 min. Movie is a compilation of every sixth frame.