

## Description of Additional Supplementary Files

**File Name:** Supplementary Movie 1

**Description:** Animated time series of a single CRY1-mClover3 knock-in cells' nucleus over the course of 3 days after synchronization (adapted from Fig. 2a).

**File Name:** Supplementary Movie 2

**Description:** Animated time series of a single CRY1-mScarlet-I knock-in cells' nucleus over the course of 3 days after synchronization (adapted from Fig. 2a).

**File Name:** Supplementary Movie 3

**Description:** Animated time series of a single PER2-mClover3 knock-in cells' nucleus over the course of 3 days after synchronization (adapted from Fig. 2c).

**File Name:** Supplementary Movie 4

**Description:** Animated time series of a single PER2-mScarlet-I knock-in cells' nucleus over the course of 3 days after synchronization (adapted from Fig. 2c).

**File Name:** Supplementary Movie 5

**Description:** Animated time series of a single CRY1- mClover3/PER2-mScarlet-I double knock-in cells' nucleus over the course of 3 days after synchronization (adapted from Fig. 3b).