

Description of Supplementary Data

Supplementary Data 1. Tables including drug sensitivity parameters and/or used doses for the data underlying Figures 3j–m. Drug sensitivity parameters of all cell model – drug combinations utilized for calculating the Pearson's correlation coefficients shown in Figure 3n and for correlation and importance analysis shown in Figure 5c, f–i.

Supplementary Data 2. Table including *Bmal1*, *Per2* and *Bmal1-Per2* (mixed) circadian metrics of all cell models analyzed in Figure 5.

Supplementary Data 3. New dataset including *Bmal1* circadian, growth, drug sensitivity and ToD_{MR} metrics of up to six cell line models used for the Blans-Altman plots shown in Supplementary Figure 5c.