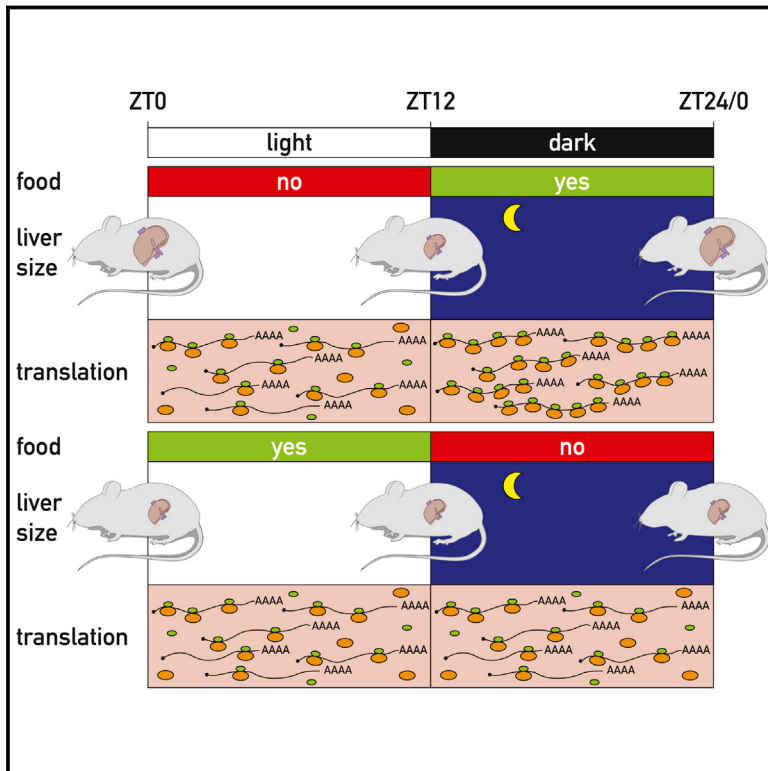


Diurnal Oscillations in Liver Mass and Cell Size Accompany Ribosome Assembly Cycles

Graphical Abstract



Authors

Flore Sinturel, Alan Gerber, Daniel Mauvoisin, ..., Carla B. Green, Frédéric Gachon, Ueli Schibler

Correspondence

frederic.gachon@rd.nestle.com (F.G.), ueli.schibler@unige.ch (U.S.)

In Brief

Daily oscillations in liver size arise from regulated changes in the number and activity of ribosomes.

Highlights

- Size, ribosome number, and protein content of mouse livers follow a daily rhythm
- Feeding-fasting rhythms drive nuclear rRNA polyadenylation cycles
- rRNA polyadenylation cycles are antiphasic to ribosomal protein synthesis rhythms
- rRNAs in incomplete ribosomal subunits are polyadenylated and degraded

