

**Rapid resetting of human
peripheral clocks by
phototherapy during simulated
night shift work**

Marc Cuesta, Philippe Boudreau,
Nicolas Cermakian & Diane B.

Boivin

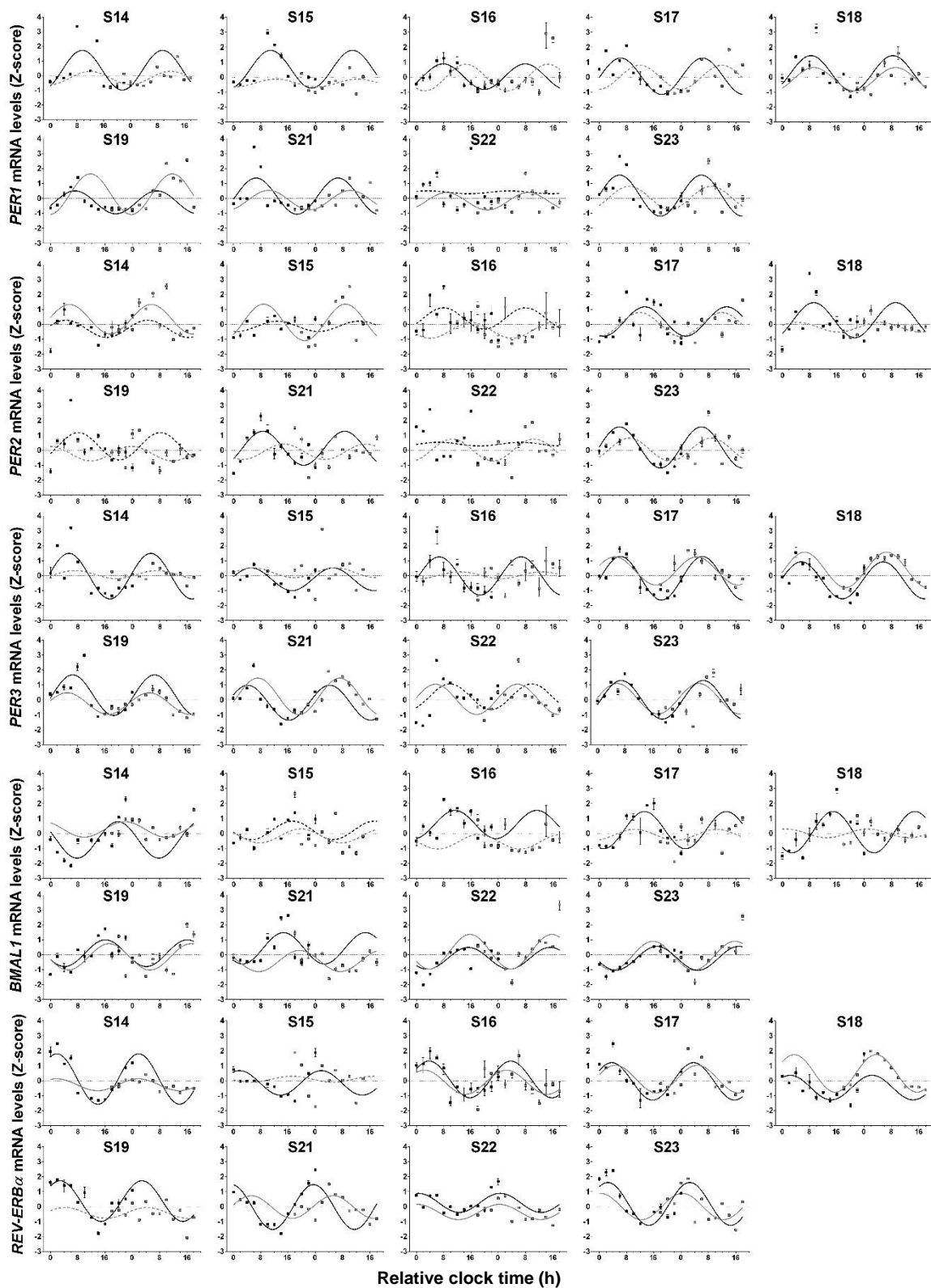


Figure S1. Individual circadian rhythms of clock gene mRNA expression in PBMCs in baseline and night shift in the control group. Mean levels (\pm upper and lower levels) and individual harmonic regressions of *PER1*, *PER2*, *PER3*, *BMAL1* and *REV-ERB α* are given as Z-scores in baseline (black) and following night shift (grey). Bedtimes and wake times were assigned a relative clock time of 0:00 and 8:00, respectively. For visualization purposes, the x-axis represents two 24-h cycles, and harmonic regressions were double plotted (over 48 h). Harmonic regressions are represented by solid lines when statistically significant and by dashed lines when non-significant.

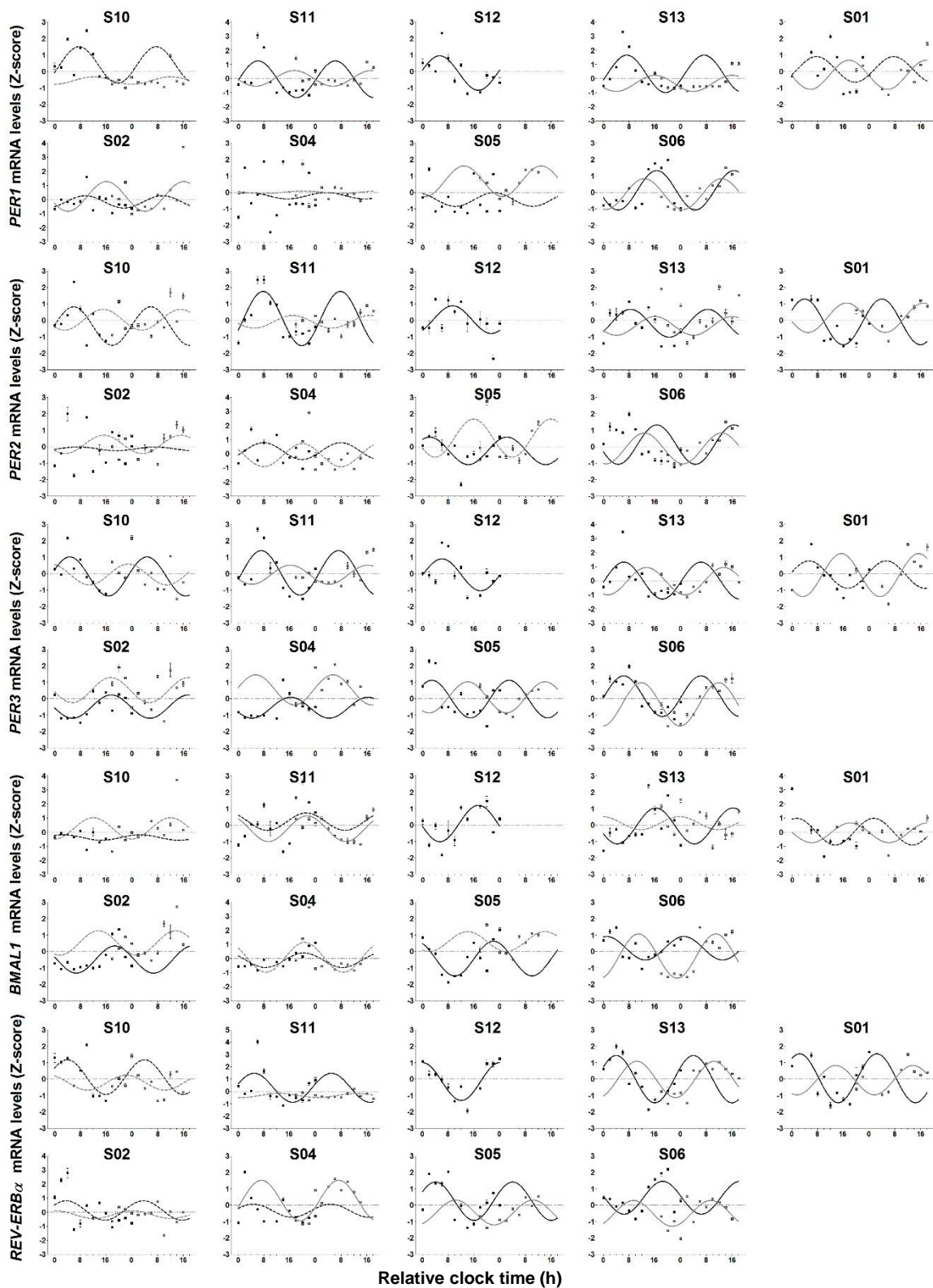


Figure S2. Individual circadian rhythms of clock genes mRNA expression in PBMCs in baseline and night shift in the bright light group. Mean levels (\pm upper and lower levels) and individual harmonic regressions of *PER1*, *PER2*, *PER3*, *BMAL1* and *REV-ERB α* are given as Z-scores in baseline (black) and following night shift (grey). Bedtimes and wake times were assigned a relative clock time of 0:00 and 8:00, respectively. For visualization purposes, the x-axis represents two 24-h cycles, and harmonic regressions were double plotted (over 48 h). Harmonic regressions are represented by solid lines when statistically significant and by dashed lines when non-significant.

Table S1. Demographic data

Subject	Group	Age	BMI	Time in bed	Time out of bed	Chronotype Type	Experimental period
S14	CTRL	21	20.4	23:57	7:59	Intermediate	August 2-7, 2012
S15	CTRL	20	19.6	22:31	6:31	Intermediate	May 15-20, 2013
S16	CTRL	27	20.7	0:30	8:16	Intermediate	May 27-June 1, 2013
S17	CTRL	18	20.4	23:00	7:02	Intermediate	June 11-17, 2013
S18	CTRL	29	23.0	0:01	8:01	Intermediate	June 26-July 1, 2013
S19 (woman)	CTRL	23	23.0	0:31	8:31	Intermediate	July 12-17, 2013
S20	CTRL	19	22.3	23:01	7:09	Moderately Morning	July 29-August 3, 2013
S21	CTRL	23	22.4	0:00	8:07	Intermediate	July 1-6, 2014
S22	CTRL	22	20.9	23:40	7:47	Intermediate	July 17-22, 2014
S23	CTRL	24	21.5	23:29	7:30	Intermediate	July 30-August 4, 2014
S01	BL	29	22.0	23:25	7:30	Moderately Morning	June 4-9, 2005
S02	BL	18	19.9	22:01	6:04	Intermediate	July 18-23, 2005
S04 (woman)	BL	22	21.2	0:00	8:01	Moderately Morning	July 25-30, 2005
S05	BL	23	23.6	23:25	7:28	Intermediate	August 3-8, 2005
S06	BL	30	23.5	23:58	8:07	Intermediate	August 11-16, 2005
S10	BL	30	21.5	0:00	8:01	Intermediate	June 3-8, 2012
S11	BL	28	23.5	22:26	6:30	Moderately Morning	June 17-22, 2012
S12	BL	19	22.5	23:00	7:04	Moderately Morning	July 2-7, 2012
S13	BL	22	24.5	23:01	7:02	Intermediate	July 8-13, 2012

CTRL: Control group; BL: Bright light group