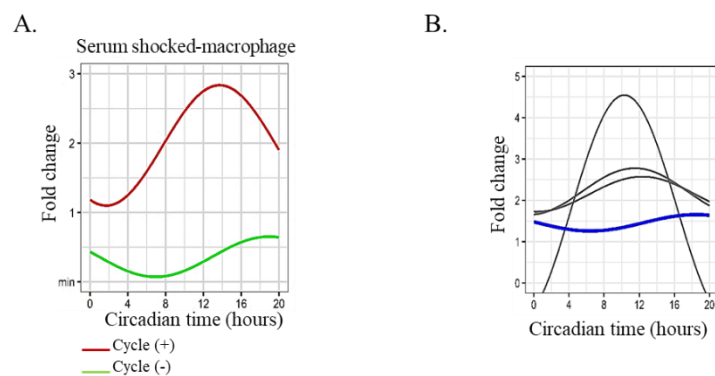


Supplemental figure 1. Schematic representation of the method used from the placental cell isolation to circadian rhythm investigation.



Supplemental figure 2. Macrophage and circadian rhythm

(A) Macrophages from six healthy donors were synchronized with 50% FBS for 2 hours before CT0. The mean of the fold change of 6 biological replicates was represented in red and green for macrophages with ($n=3$) and without ($n=3$) cycles, respectively. Each sinusoid (in gray) represents the expression of the clock genes over time for each donor after adjustment of the values by the

Cosinor model (mean of 3 technical replicates for each donor). The mean of the fold change of biological replicates was represented in blue. The statistical analysis was performed using the Cosinor function using R studio.

Supplemental Table 1. List of primers

Gene symbol	Forward primer (5'-3')	Reverse primer (3'-5')
<i>ACBT</i>	GGAAATCGTGCGTGACATTA	AGGAAGGAAGGCTGGAAGAG
<i>BMAL1</i>	AAACCAACTTTTCTATCAGACGATGAA	TCGGTCACATCCTACGACAAAC
<i>CLOCK</i>	AAGTTAGGGCTGAAAGACGACG	GAACTCCGAGAAGAGGCAGAAG
<i>PER2</i>	CGGAGTTAGAGATGGTGGGAAGA	GGGACTGGAAAATGCTGAGTT
<i>CRY2</i>	CATGGCGACAGTCAGCAAAC	ACGTTTCCCACCACTGAGAG
<i>NR1D1</i>	AGAGCACCAGCAACATCACCAAGC	TTCTTGAAGCGACATTGCTGGCAG
<i>MT2</i>	AACTGCTGCGAGGCG	GGCGGTGGTGACGATG
<i>AANAT</i>	AATCAGAAGGGAACAGTA	TGGATGACAAATAGACAAG
<i>ASMT</i>	GGGCGTGTTTGACCTTCTCG	GCTCGCCCTCGGACCTGTAG

Supplemental Table 2. Rhythmic parameters (mesor, amplitude and acrophase) for macrophages co-cultured with trophoblasts for 1 day. A p value <0.05 for mesor, amplitude and acrophase implies a rhythmicity of the investigated gene

Gene	Mesor	CI 95%	P	Amplitude	CI 95%	P	Acrophase	CI 95%	P
<i>BMAL1</i>	1.64	(1.17; 2.11)	<0.001	1.3	(0.68; 2.00)	<0.001	16.99	(15.12; 18.87)	<0.001
<i>CLOCK</i>	1.26	(0.81; 1.97)	<0.001	1.39	(0.82; 1.97)	<0.001	13.08	(11.50; 14.66)	0.18
<i>CRY2</i>	3.07	(1.98; 4.17)	<0.001	1.87	(0.33; 3.41)	0.02	11.70	(8.55; 14.85)	0.85
<i>PER2</i>	0.91	(0.55; 1.27)	<0.001	0.83	(0.31; 1.33)	0.001	7.84	(5.48; 10.19)	<0.001
<i>NR1D1</i>	1.27	(0.90; 1.64)	<0.001	1.49	(0.96; 2.01)	<0.001	13.76	(12.41; 15.11)	0.01