Supplementary Information

Dissecting differential gene expression within the circadian neuronal circuit of *Drosophila*

Emi Nagoshi , Ken Sugino, Ela Kula, Etsuko Okazaki, Taro Tachibana, Sacha Nelson, and Michael Rosbash

Table S1. mRNAs enriched in clock cells.

Rank	Probeset ID	Symbol	Fold-change
1	1633908_at	Pdf	3020
2	1628719_at	cry	266
3	1634188_a_at	tim	220
4	1631468_a_at	tim	85.7
5	1639273_s_at	vri	75.1
6	1641099_a_at	Hr51	65.6
7	1633836_a_at	Fkbp13	59.5
8	1627795_at	Ir	54.1
9	1632706_at	CG13054	47.2
10	1638078_at	Side	44.9
11	1632873_at	MtnA	40.8
12	1631948_s_at	Clk	40.6
13	1632734_s_at	bnb	37.0
14	1631722_at	1631722_at	33.2
15	1638452_at	per	27.7
16	1631394_at	CG31324	27.6
17	1639281_at	Fer2	27.5
18	1635900_at	Thor	23.8
19	1629277_at	CG31475	23.0
20	1634684_at	CG7272	20.7
21	1637772_at	CG4726	18.4
22	1623605_a_at	cbt	18.0
23	1636149_at	CG31705	16.8
24	1624819_s_at	1624819_s_at	15.3
25	1638611_at	1638611_at	14.8
26	1629399_at	CG30282	14.7
27	1623277_at	CG17100	14.2
28	1631843_at	CG6749	13.2
29	1641270_at	CG8745	12.5
30	1637269_at	CG6310	11.7
31	1635347_a_at	CG8557 /// DmirCG8557	10.8
32	1630748_at	CG32653	10.6
33	1626447_at	CG10508	10.3
34	1633480_at	CG5392	10.3
35	1637309_a_at	Cyp12e1	10.2
36	1627436_s_at	Pdp1	10.2
37	1641028_at	CG33988	10.0
38	1633144_at	jbug	9.38

39	1631534_at	sfl	9.02
40	1630614_s_at	1630614_s_at	8.76
41	1639074_at	CG33275	8.72
42	1641361_a_at	Mkp3	8.52
43	1624405_a_at	CG7059	6.98
44	1638717_at	CG10932	6.97
45	1628865_at	opa	6.73
46	1625370_s_at	gem	6.65
47	1631765_at	puc	5.95
48	1627101_at	scyl	5.37
49	1631112_at	1631112_at	5.36
50	1636800_at	1636800_at	5.25
51	1639002_s_at	CG14801	5.20
52	1623594_at	blow	5.18
53	1639834_at	CG14291 /// DpseGA12883 /// DvirGJ14185	4.84
54	1632712_s_at	CG17836 /// DbuzCG17836	4.45
55	1638563_at	CG6490	4.33
56	1633512_at	toy	4.29
57	1625145_a_at	Anxb11	4.14
58	1623133_a_at	CG10508	4.11
59	1629779_at	Mcr	4.02
60	1636193_at	CG13893	3.84
61	1635543_at	1635543_at	3.58
62	1640886_a_at	kay	3.54
63	1633359_a_at	Traf3	3.53
64	1632129_a_at	syd	3.43
65	1623931_s_at	CanA-14F	3.34
66	1624070_at	RpS9	3.06
67	1625556_at	ari-2	3.02
68	1631728_s_at	PRL-1	2.98
69	1635491_s_at	TRAM	2.96
70	1630278_s_at	1630278_s_at	2.90
71	1637703_a_at	Socs36E	2.80
72	1629078_s_at	Pk61C	2.74
73	1630624_s_at	CG10151	2.73
74	1629641_s_at	1629641_s_at	2.48
75	1633379_s_at	cnc	2.46
76	1624168_at	CG14411	2.37
77	1632381_at	dome	2.32
78	1636406_at	CG10321	2.25
79	1627850_at	CG3689	2.17
80	1636639_at	Spp	2.14
81	1640598_s_at	1640598_s_at	2.14
82	1626806_at	tra	2.10
83	1638476_s_at	mnb	2.10
84	1639795_at	CG4558	2.01

Table S2. mRNAs enriched in LNvs.

Rank	Probeset ID	Symbol	Fold-change
1	1633908_at	Pdf	3970
2	1628719_at	cry	305
3	1634188_a_at	tim	141
4	1627795_at	Ir	123
5	1641099_a_at	Hr51	123
6	1632706_at	CG13054	121
7	1638078_at	Side	107
8	1631468_a_at	tim	95.0
9	1626874_at	Eip63F-1	88.4
10	1638452_at	per	57.6
11	1640533_at	CG32406	52.1
12	1630036_at	CG13594	51.9
13	1630454_at	CG14086	51.6
14	1626529_at	CG12977	51.4
15	1639273_s_at	vri	48.8
16	1635724_at	CG14292 /// DpseGA12884 /// DvirGJ14186	45.7
17	1639281_at	Fer2	40.0
18	1629277_at	CG31475	36.1
19	1633800_s_at	CG10089	32.3
20	1633252_at	CG31714	30.9
21	1625297_at	CG8128 /// DmirCG8128	29.0
22	1626727_at	Mct1	28.5
23	1631843_at	CG6749	26.3
24	1632734_s_at	bnb	26.0
25	1634256_a_at	stg1	23.7
26	1640970_at	CG9313 /// DmirCG9313	22.0
27	1626892_at	del	20.1
28	1623714_at	CG8620	18.6
29	1626447_at	CG10508	17.3
30	1623605_a_at	cbt	17.0
31	1633480_at	CG5392	13.8
32	1630748_at	CG32653	13.8
33	1637772_at	CG4726	13.7
34	1624405_a_at	CG7059	13.6
35	1639163_at	1639163_at	13.6
36	1623277_at	CG17100	13.4
37	1641028_at	CG33988	13.1
38	1628385_a_at	Mef2	11.2
39	1629688_at	Oseg4	10.8
40	1637109_s_at	CG3961	9.53
41	1628572_s_at	su(rdgB)69	9.38
42	1637929_a_at	CG32602	8.56
43	1631250_at	ind	8.29
44	1636193_at	CG13893	7.96
45	1641091_at	CG3280	7.77
46	1633512_at	toy	7.42
47	1628476_at	PP2A-B	6.83
48	1636648_s_at	1636648_s_at	6.56

49	1639538_at	1639538_at	6.29
50	1640976_at	l(1)G0155	5.46
51	1636365_at	sick	5.09
52	1627511_at	chrb	4.84
53	1632129_a_at	syd	3.78
54	1623422_a_at	CG31908	3.33
55	1638043_a_at	CG3530	3.14
56	1629078_s_at	Pk61C	3.14
57	1624928_at	TORC	3.12
58	1626806_at	tra	2.82
59	1638498_s_at	CG1600	2.55
60	1636406_at	CG10321	2.40
61	1627850_at	CG3689	2.19
62	1624168_at	CG14411	2.18
63	1640276_a_at	Flo	2.15

Table S3. mRNAs enriched in tim(+)pdf(-)-cells.

Rank	Probeset ID	Symbol	Fold-change
1	1628177_at	jhamt	3260
2	1626485_at	sad	1820
3	1638601_at	1638601_at	1230
4	1627188_at	phm	945
5	1631165_at	CG4688	933
6	1626857_at	CG4408	885
7	AFFX-Dm-U43284-1_s_at	AFFX-Dm-U43284-1_s_at	576
8	1626721_at	CG11762	574
9	1627946_at	CG12068	471
10	1624363_at	CG15201	443
11	1624634_at	CG40050	401
12	1640529_at	CG15408	333
13	1633060_at	Cyp6g2	324
14	1623643_s_at	Idgf3	236
15	1626503_at	CG2254	216
16	1635406_at	Pkg21D	195
17	1641538_at	CG30017	186
18	1636103_a_at	nocturnin	174
19	1623996_at	CG5001	164
20	1633112_at	moody	161
21	1640303_a_at	pst	150
22	1632558_at	1632558_at	140
23	1630930_a_at	fus	139
24	1635389_s_at	Idgf4	137
25	1623565_at	CG17278	135
26	1630487_s_at	1630487_s_at	132
27	1627460_at	CG18343	127
28	1623624_at	CG14869	123
29	1624272_at	CHKov1	113
30	1629121_at	CG10337	112
31	1623770_at	CG1673 /// DpaiCG1673 /// DsimCG1673	111
32	1622990_at	CG5381	110
33	1637936_at	CG32512	107
34	1629906_s_at	1629906_s_at	103
35	1627430_at	CG8888	102
36	1635390_s_at	CG9331	101
37	1640565_at	PebIII	95.8
38	1637491_s_at	CG3835	95.4
39	1629553_at	CG14153	93.1
40	1639276_at	CG4680	92.6
41	1630067_a_at	TepII	91.7
42	1636158_at	CG8492	90.0
43	1632840_s_at	fus	89.9
44	1631280_at	CG9095	89.6
45	1633893_at	CG31217	88.0
46	1638587_at	tor	86.9
47	1630038_at	pyd3	86.8
48	1625041_at	Oatp74D	85.1

49	1624404_a_at	Sk1	82.4
50	1626383_at	CG4096	81.3
51	1641143_s_at	tsl	80.1
52	1623244_at	1623244_at	77.8
53	1629265_at	dib	75.5
54	1634468_at	CG13397	75.2
55	1625791_s_at	1625791_s_at	73.5
56	1626417_at	Cht3	72.4
57	1634207_at	CG16799 /// DmirCG16799 /// DpseGA14157	69.8
58	1634125_at	CG30440	69.6
59	1633293_at	CG10157	64.7
60	1630642_at	Pvf2	63.3
61	1627354_at	CG11779 /// CG5835 /// DbipCG11779 /// DmeiCG11779 /// DmmmCG11779 /// DmplCG11779 /// DninCG11779 /// DpbpCG11779 /// DpbpCG5835 /// DpspCG11779 /// DvarCG11779	60.7
62	1626994_at	CG33492	59.0
63	1624503_at	CG4786	59.0
64	1626273_at	CG6232	57.0
65	1624203_s_at	Gli	57.0
66	1626275_at	1626275_at	56.8
67	1640747_s_at	CG8547	55.0
68	1633357_at	CG7910	53.5
69	1633998_s_at	1633998_s_at	52.9
70	1625071_a_at	Mlc2	52.2
71	1627872_at	CG3770	50.8
72	1629062_at	CG13252	50.5
73	1631808_at	1631808_at	50.5
74	1635287_at	CG15366	50.4
75	1628729_at	1628729_at	50.2
76	1640989_at	CG12811	48.8
77	1626414_at	Jheh1	48.2
78	1628252_at	CG17919	47.6
79	1640856_at	CG14755	47.4
80	1635445_at	1635445_at	46.5
81	1634546_at	Tig	46.2
82	1631477_a_at	Sdic1	45.4
83	1626908_at	CG8066	44.9
84	1629963_at	sut1	44.2
85	1625736_at	1625736_at	42.8
86	1633944_at	CG17362	42.7
87	1637499_s_at	CG5953	42.3
88	1640448_x_at	1640448_x_at	41.7
89	1634666_at	1634666_at	41.3
90	1637077_s_at	CG3777	40.4
91	1632067_at	1632067_at	40.2

92	1626138_s_at	Eip63E	40.2
93	1632744_a_at	if	39.3
94	1623494_at	ImpE3	38.8
95	1623339_at	CG7498	38.4
96	1639396_s_at	CDase	38.4
97	1637717_at	sev	38.1
98	1635616_a_at	CG2118	36.5
99	1641250_at	CG14302	35.9
100	1632517_at	CG7966	35.5
101	1636168_s_at	CG13101	35.1
102	1637535_at	1637535_at	34.9
103	1636510_a_at	Lsd-1	34.4
104	1628428_at	Fpps	34.2
105	1628963_at	CG4716	33.3
106	1638852_at	CHKov2	33.1
107	1637097_at	CG7497	31.8
108	1637662_at	msta	31.6
109	1638345_at	fog	30.6
110	1630741_s_at	PGRP-LB	30.1
111	1627266_at	1627266_at	29.8
112	1640170_at	CG10311	29.0
113	1634507_s_at	CG17549	28.7
114	1628296_at	pgant4	28.5
115	1627967_a_at	mthl4	28.5
116	1641437_at	1641437_at	28.4
117	1632204_at	Mmp1	28.4
118	1623552_s_at	CG2893	28.2
119	1640817_at	zormin	27.8
120	1640912_s_at	scarface	26.8
121	1632964_at	CG15678	26.8
122	1626434_s_at	HMS-Beaglepol	26.3
123	1624053_at	CG33967	26.3
124	1628682_at	CG5577	25.6
125	1636242_at	Ilp6	25.5
126	1641210_s_at	1641210_s_at	25.1
127	1635049_at	CG13877	25.0
128	1629893_s_at	1629893_s_at	24.8
129	1631849_at	heix	24.5
130	1624741_at	CG14464	24.3
131	1640703_at	CG30460	22.5
132	1624969_s_at	CG17041	21.8
133	1632600_at	1632600_at	21.5
134	1625637_at	Start1	21.2
135	1632715_at	1632715_at	21.0
136	1626228_a_at	CG6967	21.0
137	1625531_at	Obp18a	20.8
138	1624156_at	Ugt86Da	20.4
139	1636750_s_at	CG13737	20.2
140	1633288_at	CG31763	19.9
141	1636780_at	meso18E	19.9
142	1638808_at	Syx4	19.5
143	1633488_at	aay	19.3

144	1624580_at	CG9362	19.3
145	1626326_at	CG31436	19.3
146	1627070_x_at	CG15040	19.2
147	1628224_a_at	E23	19.1
148	1626603_at	zormin	18.8
149	1640702_at	1640702_at	18.4
150	1637534_at	olf186-F	18.4
151	1628611_at	CG11241	18.0
152	1631426_at	CG32412	17.9
153	1632372_at	CG31076	17.1
154	1626856_at	CG12560	17.1
155	1637917_s_at	ttk	16.6
156	1634072_s_at	Hmgs	16.5
157	1627659_at	CG32510	16.0
158	1633241_at	CG31340	16.0
159	1623094_at	Tsp42Ei	15.8
160	1635126_a_at	1635126_a_at	15.3
161	1637672_at	CG15919	15.0
162	1635829_s_at	1635829_s_at	14.6
163	1631783_at	CG4267	14.6
164	1625688_at	CG6293	14.5
165	1625891_at	CG17111	14.4
166	1641650_at	alpha-Est5	14.3
167	1637504_at	CG17754	13.9
168	1640200_at	Dys	13.9
169	1641180_a_at	CG33937	13.9
170	1629448_at	CG14358	13.9
171	1640581_at	1640581_at	13.7
172	1628990_at	Hmgcr	13.6
173	1627555_s_at	1627555_s_at	13.4
174	1627656_at	grk	13.2
175	1625932_at	Samuel	13.1
176	1636106_s_at	alt	12.5
177	1637658_at	mthl3	12.5
178	1629559_s_at	Atet	12.2
179	1628712_at	CG17754	12.2
180	1631874_at	1631874_at	12.1
181	1630430_a_at	CG30437	11.8
182	1626301_at	Idgf3	11.3
183	1625643_s_at	1625643_s_at	11.0
184	1626453_x_at	1626453_x_at	11.0
185	1628052_at	Cyp6a17	11.0
186	1633290_a_at	1633290_a_at	10.9
187	1629516_at	1629516_at	10.8
188	1624017_at	Ahcy89E	10.7
189	1627307_at	CG5681	10.6
190	1622906_at	1622906_at	10.6
191	1636112_s_at	CG33521	10.5
192	1627198_at	CG33928	10.4
193	1632475_at	msn	10.3
194	1630146_at	CG12508	10.2
195	1637971_a_at	CG8129	10.2

196	1630142_at	sog	10.2
197	1631389_at	1631389_at	10.1
198	1629047_at	1629047_at	10.0
199	1626328_at	CG32259	9.79
200	1641351_at	1641351_at	9.72
201	1637161_s_at	myoglianin	9.72
202	1624737_at	CG31001	9.61
203	1636934_at	zormin	9.52
204	1629640_at	1629640_at	9.46
205	1634580_at	bsk	9.35
206	1629416_s_at	1629416_s_at	9.13
207	1633760_at	CG10399	8.64
208	1641606_s_at	CG6608	8.48
209	1623327_at	1623327_at	8.46
210	1624067_at	CG6704	8.36
211	1625195_s_at	shn	8.28
212	1635182_at	wts	8.13
213	1624985_at	CG7886	8.01
214	1625125_at	CG5599	7.72
215	1632390_at	cer	7.68
216	1626382_s_at	CG13887	7.61
217	1641058_at	CG1319	7.57
218	1631390_at	CG5919	7.54
219	1630290_at	mld	7.49
220	1629323_at	CG32644	7.39
221	1628080_at	GIIIspla2	7.13
222	1637805_at	1637805_at	7.10
223	1631071_s_at	1631071_s_at	7.08
224	1635651_at	CG30195	6.91
225	1641698_at	CG6429	6.87
226	1627122_at	CG32767	6.73
227	1625448_at	1625448_at	6.55
228	1631266_a_at	CG5840	6.51
229	1637345_at	CG31856	6.37
230	1624885_at	CG32645	6.28
231	1622992_at	twe	6.27
232	1628421_at	lola	6.09
233	1629747_at	Cpr49Ag	5.87
234	1631058_s_at	Mgstl	5.68
235	1638873_at	CG6175	5.66
236	1638787_at	CG40207	5.62
237	1627925_at	spict	5.43
238	1638132_at	CG10184	5.31
239	1641680_at	1641680_at	5.14
240	1639009_at	CG10962	5.13
241	1638768_at	Cpr11A	5.11
242	1637755_at	CG10987	5.11
243	1639147_s_at	CG30438	5.06
244	1636400_at	1636400_at	5.05
245	1625471_s_at	CG4928 /// DsimCG4928	5.03
246	1632947_at	axo	5.00
247	1630726_at	CG32652	4.86

248	1640360_at	IM2	4.82
249	1633861_at	CG8145	4.76
250	1627126_at	1627126_at	4.75
251	1628650_at	CG31538	4.71
252	1628266_at	1628266_at	4.69
253	1626962_x_at	CG32652	4.68
254	1639124_at	CG31283	4.67
255	1630279_at	CG40383	4.59
256	1625514_s_at	olf186-F	4.56
257	1632368_at	djl	4.55
258	1628370_at	1628370_at	4.45
259	1627144_at	CG10560	4.44
260	1623848_a_at	1623848_a_at	4.43
261	1629945_at	CG32341	4.37
262	1633992_at	CG2137	4.36
263	1637432_at	CG3097	4.34
264	1624084_s_at	1624084_s_at	4.26
265	1633146_at	1633146_at	4.23
266	1634641_a_at	Cyt-b5	4.19
267	1635827_s_at	Stat92E	4.19
268	1632796_s_at	EcR	4.18
269	1636452_at	CG14423	4.17
270	1633354_at	Cyp6v1	4.13
271	1635565_at	CG32060	4.07
272	1633999_at	1633999_at	4.05
273	1632490_at	CG8008	4.03
274	1633410_at	CG2975	3.99
275	1626080_at	1626080_at	3.97
276	1632013_s_at	CG40388 /// CG40390	3.97
277	1623783_at	CG8489	3.95
278	1624083_s_at	M(2)21AB	3.94
279	1636545_at	CheB38c	3.91
280	1634303_at	hpo	3.89
281	1638331_s_at	CG31054 /// CG4849	3.82
282	1641356_at	CG33300	3.78
283	1634861_at	CG17177	3.77
284	1628454_at	ppk12	3.72
285	1640498_at	1640498_at	3.59
286	1629642_a_at	CG17664	3.57
287	1635524_at	CG30427	3.55
288	1633329_at	yellow-h	3.51
289	1626479_at	Rapgap1	3.46
290	1635104_s_at	CG33936	3.45
291	1635733_x_at	CG31439	3.44
292	1638228_s_at	1638228_s_at	3.42
293	1637050_at	CG33054	3.41
294	1623963_at	CG32115	3.37
295	1623213_at	1623213_at	3.33
296	1631657_at	1631657_at	3.31
297	1625114_at	Cyp310a1	3.28
298	1627662_at	Ugt35a	3.27
299	1625552_at	CG14820	3.25

300	1631043_x_at	1631043_x_at	3.18
301	1626793_at	CG30427	3.11
302	1632729_at	dmrt93B	3.10
303	1625278_s_at	CG31004	3.06
304	1628617_at	dro4	3.05
305	1635798_a_at	CG17364	3.01
306	1625368_at	1625368_at	2.99
307	1627168_at	CG13476	2.96
308	1632428_at	CG11345	2.90
309	1631316_a_at	CG6262	2.90
310	1638907_at	1638907_at	2.87
311	1630380_at	CG3837	2.85
312	1630482_at	CG4161	2.85
313	1629778_s_at	CG5130	2.84
314	1637310_at	1637310_at	2.84
315	1632334_at	1632334_at	2.79
316	1626660_at	CG15024	2.76
317	1641136_at	Cpr78Cc	2.73
318	1634366_at	CG32185	2.69
319	1629038_at	CG31545	2.64
320	1624373_at	Crg-1	2.62
321	1632320_at	CG32080	2.62
322	1636652_a_at	CG14955	2.61
323	1624892_s_at	CG11892 /// DyakCG11892	2.60
324	1628730_at	rdgA	2.59
325	1636058_at	CG31439	2.58
326	1635503_at	Vm34Ca	2.54
327	1633804_at	RhoGDI	2.48
328	1629490_at	1629490_at	2.46
329	1635989_at	Hf	2.45
330	1634372_at	Ddr	2.45
331	1633857_at	CG13659	2.44
332	1629459_at	Doc3	2.44
333	1638080_at	CG13658	2.42
334	1640776_at	1640776_at	2.34
335	1638513_s_at	atl	2.31
336	1636095_at	CG4619	2.30
337	1634460_at	1634460_at	2.24
338	1640322_at	CG13231	2.24
339	1626226_at	1626226_at	2.19
340	1635435_at	CG30278	2.17
341	1627932_at	how	2.13
342	1639561_at	1639561_at	2.08

Table S4. Genes tested in the behavioral screening
Fkbp13
Side
MtnA
bnb
Thor
sfl
Hr51
CG13054
CG14086
Fer2
CG4408
nocturnin

Supplementary Table Legends

Table S1. mRNAs enriched in "clock cell" groups as compared to elav-labeled generic neurons. 84 mRNAs were found to be enriched more than 2-fold in clock cells ($p<0.001$, FDR=3.4 %).

Table S2. mRNAs enriched in LNvs as compared to tim(+)pdf(-)-cells and generic neurons. Microarray data sets from lv- and ad-LNvs were compared to PDF-negative cells (lv-tim(+)pdf(-)-cells, lv-elav and ad-elav cells) and ordered by the fold difference. 63 mRNAs were enriched more than 2-fold in LNvs ($p<0.0001$, FDR=0.8 %).

Table S3. mRNAs enriched in tim(+)pdf(-)- cells compared to LNvs and generic neurons. Microaray data sets from lv-tim(+)pdf(-)-cells were compared to the average of LNvs (lv-LNv, adult s-LNv, adult l-LNv) and generic neurons (lv-elav-cells and ad-elav-cells), and ordered by the fold difference. 342 mRNAs were found to be enriched more than 2-fold

in tim(+)pdf(-)- cells ($p<0.0001$, FDR=1.8 %). Note that clock genes were not selected in this list, because this analysis identified the genes preferentially expressed in tim(+)pdf(-)- cells over PDF-positive LNvs.

Table S4. Genes tested in the locomotor behavioral screening.

Mutants or RNAis for *Fer2, Thor*, and d*nocturnin* showed altered behavioral phenotypes (see text), while others appeared wild-type-like.

Figure S1

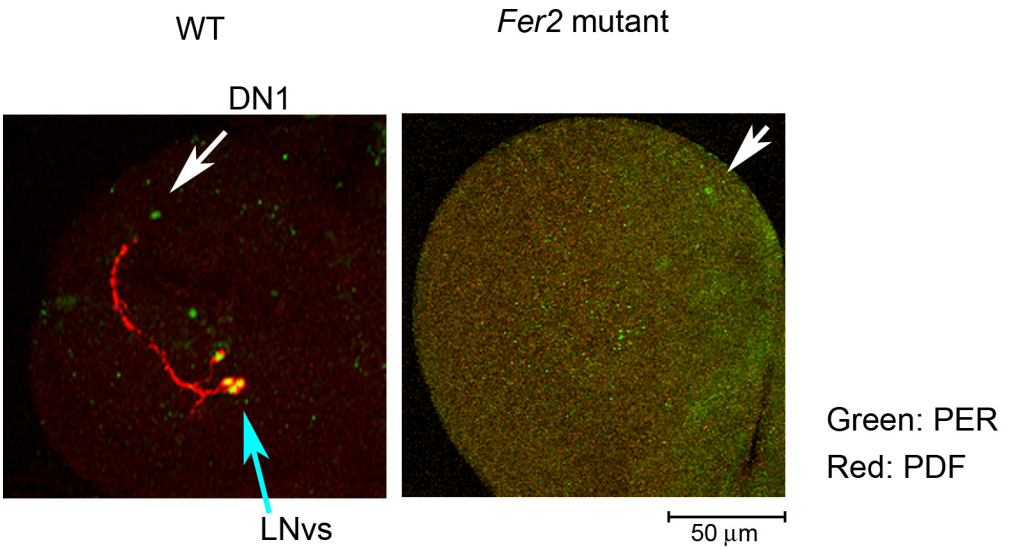

Figure S1. PDF and PER expression in the LNvs is abolished in the *Fer2* mutant larval brain. 3rd instar larvae of wild-type (WT) and homozygous *Fer2* mutant were harvested at ZT0, and the expression of PDF and PER was examined by immunostaining. z-stack projections of confocal images are shown. A minimum of 4 brains were analyzed with similar results.

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Figure S2

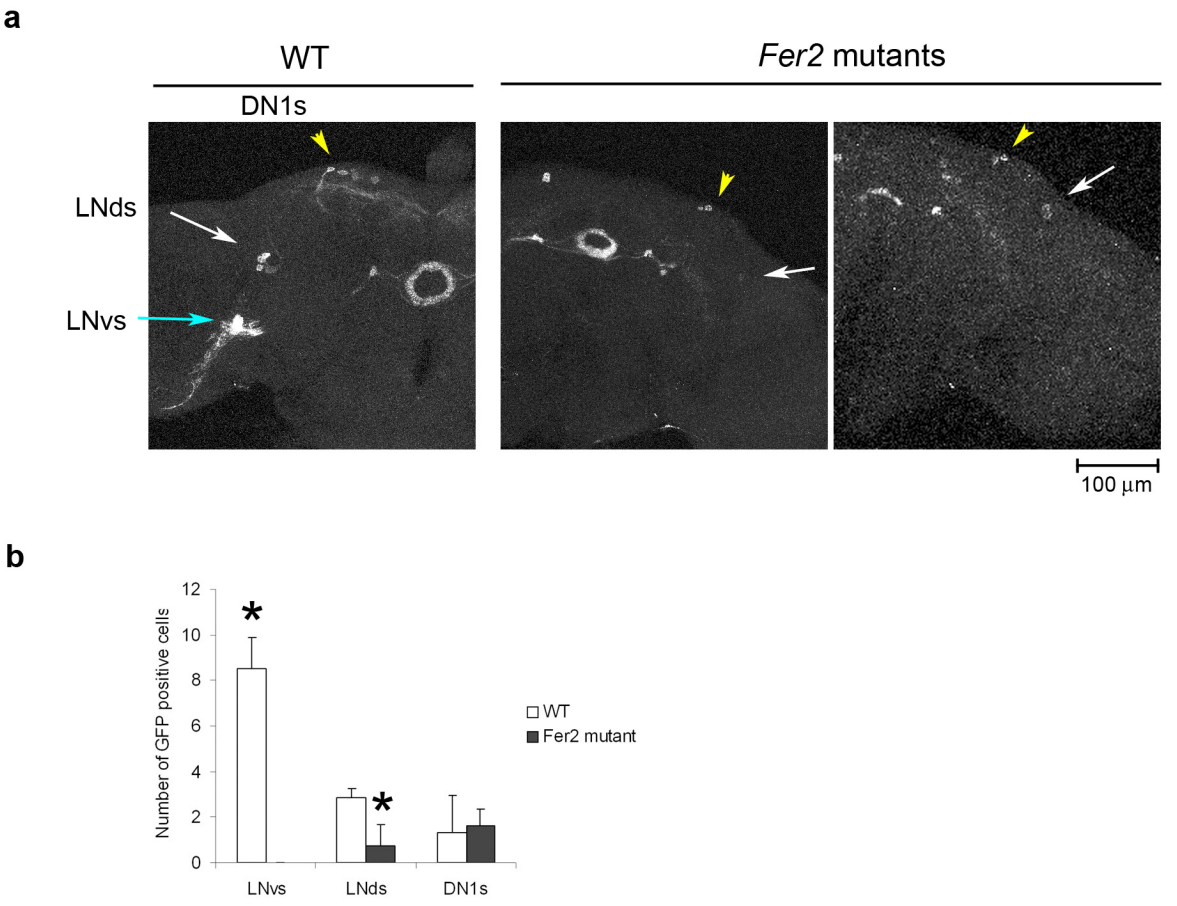

Figure S2. *Cry* expression in Lateral Neurons is impaired in the *Fer2* mutant brain.

a. *UAS-YFP* driven by *cry (39)-GAL4* in wild-type and homozygous *Fer2* mutant brains.

b. The numbers of YFP-labeled cells in wild-type and homozygous *Fer2* mutant brains. 7 WT- and 6 mutant brains were analyzed. The numbers of YFP-labeled LNvs and Lands were significantly reduced in the mutant brains (*$p<0.001$, two-sample t test).

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Figure S3

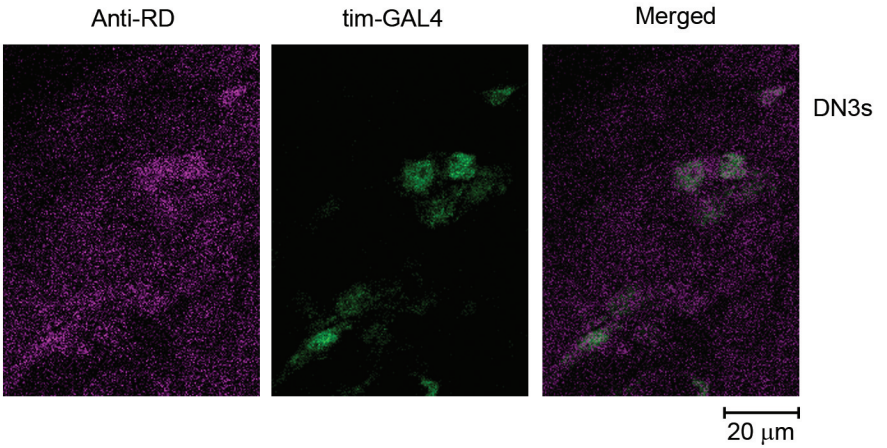

Figure S3. NOC-RD is expressed in a subset of DN3s.

tim-GAL4, UAS-2xEYFP/CyO flies were entrained in LD for 3 days and harvested at ZT11. The brains were immunostained with anti-NOC-RD antibody and imaged by confocal microscopy.

Figure S4

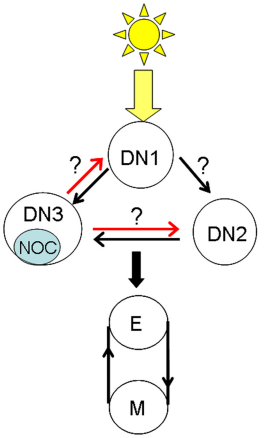

Figure S4. A hypothetical model of the NOC-RD functions in the adult brain. Light input in the early night is processed in the DNs and sets the timing of the master oscillators consisting of M-and E- cells. NOC-RD may be involved in the signaling between DN3s and other clock neurons including DN1s and DN2s (red arrows). The light information ultimately affects M- and E- cells.

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