

## Supplementary table 1

Intruder Resident	Adult♂	Juvenile♂	Adult♀
Virgin♀(SW)	Mate	Attack 78.9% (30/38) Mount 0% (0/38)	Attack 60% (6/10) Mount 0% (0/10)
Virgin♀(C57)	Mate	Attack 0% (0/10) Mount 30% (3/10)	Attack 0% (0/10) Mount 60% (6/10)
Lactating♀(SW)	Attack 88.5% (23/26) Mount 0% (0/26)	Attack 94.1% (16/17) Mount 0% (0/17)	Attack 80% (8/10) Mount 0% (0/10)
Lactating♀(C57)	Attack 42.1% (8/19) Mount 0% (0/19)	Attack 68.4 (13/19) Mount 0% (0/19)	Attack 44.4% (4/9) Mount 0% (0/9)

**Supplementary Table 1, Related to Figure 1.** Probability of attack or mount when a female mouse encounters an adult male, a juvenile male or an adult female intruder in her home cage. All test females are singly housed for at least one week. All intruders are C57BL/6N background.

# Supplementary Table 2

TEST USED		n			DESCRIPTIVE STATS (AVERAGE, VARIANCE)		P VALUE		DEGREES OF FREEDOM & F/t/z/R/ETC VALUE		
FIGURE NUMBER	WHICH TEST?	SECTION & PARAGRAPH #	EXACT VALUE	DEFINED?	SECTION & PARAGRAPH #	REPORTED?	SECTION & PARAGRAPH #	EXACT VALUE	SECTION & PARAGRAPH #	VALUE	SECTION & PARAGRAPH #
1a middle	Unpaired t-test	Fig. legend	5, 6	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p = 0.0003	Fig and Fig. legend	t(9)=5.5717	n/a
1a right	Paired t-test	Fig. legend	6	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p = 0.0014	Fig and Fig. legend	t(5)=6.3436	n/a
1b middle	Unpaired t-test	Fig. legend	3, 5	lactating female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p = 0.0034	Fig and Fig. legend	t(6)=4.6890	n/a
1b right	Paired t-test	Fig. legend	5	lactating female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p = 0.0428	Fig and Fig. legend	t(4)=2.9298	n/a
1c middle	Unpaired t-test	Fig. legend	3, 4	lactating female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p = 0.0037	Fig and Fig. legend	t(5)=5.1078	n/a
1c right	Paired t-test	Fig. legend	4	lactating female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p = 0.0078	Fig and Fig. legend	t(3)=6.3687	n/a
1d middle	Unpaired t-test	Fig. legend	5, 3	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p = 0.0006	Fig and Fig. legend	t(6)=6.5737	n/a
1d right	Paired t-test	Fig. legend	3	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p = 0.0007	Fig and Fig. legend	t(2)=38.5744	n/a
2d right	Pearson product-moment correlation	Fig. legend	n=731	seconds	Fig and Fig. legend	individual data plots	Fig. legend	p = 0.0859	Fig and Fig. legend	R = 0.0636	Fig.
2j	Paired t-test	Fig. legend	12, 12, 11, 12, 5	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p=0.4881, p=0.00032, p=0.000077, p=0.000031, p=0.0036	Fig and Fig. legend	t(11)=0.7174, t(11)=5.1444, t(10)=6.4108, t(11)=6.7634, t(4)=6.1375	n/a
2k	Paired t-test	Fig. legend	6, 6, 6, 6, 6, 5, 6	lactating female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p=0.3771, p=0.0185, p=0.0178, p=0.0014, p=0.0019, p=0.5860, p=0.1310	Fig and Fig. legend	t(5)=0.9688, t(5)=3.4375, t(5)=3.4708, t(5)=6.3677, t(5)=5.9439, t(4)=0.5915, t(5)=1.8048	n/a
2l	Paired t-test	Fig. legend	6	lactating female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p=0.0245	Fig and Fig. legend	t(5)=3.1816	n/a
2m	Paired t-test	Fig. legend	11, 6, 6	virgin or lactating female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p=0.0212, p=0.0077, p=0.0054	Fig and Fig. legend	t(10)=2.7309, t(5)=4.3084, t(5)=4.6828	n/a
2n	Paired t-test	Fig. legend	5	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p=0.0440	Fig and Fig. legend	t(4)=2.9020	n/a
result, para 4	Paired t-test	result, para4	6	lactating female mice	result, para4	error bars are mean +/- SEM	result, para4	p=0.040	result, para4	t(5)=2.7613	n/a

result, para 4	Paired t-test	result, para4	6	lactating female mice	result, para4	error bars are mean +/- SEM	result, para4	p=0.88	result, para4	t(5)=0.1626	n/a
3e	Two-way repeated measure ANOVA	Fig. legend	13, 10	lactating female mice, hM4Di and control	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	at different time points, p = 0.0016; between groups, p = 0.0389; and interaction, p = 0.0156.	n/a	at different time points, F(5,105) = 4.2; between groups, F(1,21) = 4.85; and interaction F(5,105) = 2.95.	n/a
3e	Holm-Sidak post-hoc multiple comparisons	Fig. legend	13, 10	lactating female mice, hM4Di and control	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p value on Postpartum Day 2: 1; Day 3: 0.0046; Day 4: 1; Day 5: 0.0357; Day 6: 0.9215 and Day 7: 0.0530.	Fig and Fig. legend	n/a	n/a
3f left	Paired t-test	Fig. legend	13	lactating female mice, hM4Di	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p = 1.08 x 10 <sup>-4</sup>	Fig and Fig. legend	t(12)=5.6484	n/a
3f right	Paired t-test	Fig. legend	10	lactating female mice, control	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p = 0.7507	Fig and Fig. legend	t(9)=0.3277	n/a
3g left	Paired t-test	Fig. legend	11	lactating female mice, hM4Di	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p=0.0306	Fig and Fig. legend	t(10)=2.5161	n/a
3g right	Paired t-test	Fig. legend	5	lactating female mice, control	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p = 0.7596	Fig and Fig. legend	t(4)=0.3277	n/a
3h	Two-way repeated measure ANOVA	Fig. legend	13, 10	lactating female mice, hM4Di and control	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	at different time points, p = 0.0006; between groups, P=0.4782 ; and interaction, P=0.9904.	n/a	at different time points, F (5, 105) = 4.741 ; between groups, F (1, 21) = 0.5214; and interaction F (5, 105) = 0.1078	n/a
3i	Paired t-test	Fig. legend	13	lactating female mice, hM4Di	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p = 0.6674	Fig and Fig. legend	t(12)=0.4405	n/a
3j	Paired t-test	Fig. legend	13	lactating female mice, hM4Di	Fig and Fig. legend	error bars are mean +/- SEM	Fig. legend	p = 0.4747	Fig and Fig. legend	t(12)=0.7380	n/a
3k	Pearson product-moment correlation	Fig. legend	12	lactating female mice, hM4Di	Fig and Fig. legend	individual data plots	Fig. legend	p=0.0081	Fig and Fig. legend	R=-0.72	Fig.
4g	Paired t-test	Fig. legend	12	virgin female mice, Chr2	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p = 2.27 x 10 <sup>-4</sup> , p=9.86x 10 <sup>-4</sup>	Fig and Fig. legend	t(11)=5.3688, t(11)= 4.4453	n/a
4 h	Paired t-test	Fig. legend	12	virgin female mice, Chr2	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p=0.0492, p=0.0128	Fig and Fig. legend	t(11)=2.2097, t(11)=2.9666	n/a

4 i	Two-way repeated measure ANOVA	Fig. legend	adult male intruder, 8 stimulation sites; adult female intruder, 6 stimulation sites	virgin female mice, Chr2	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	behavior: $p = 4.66 \times 10^{-6}$ ; between intruder types: $p = 0.97$ ; the interaction term: $p = 0.73$ .	n/a	behavior: $F(1,12) = 61.37$ ; between intruder types: $F(1, 12) = 0.0010$ ; the interaction term: $F(1,12) = 0.12$ .	n/a
4 i	Holm-Sidak post-hoc multiple comparisons	Fig. legend	adult male intruder, 8 stimulation sites; adult female intruder, 6 stimulation sites	virgin female mice, Chr2	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p values for male intruder: 0.0023; female intruder: 0.0055.	Fig and Fig. legend	n/a	n/a
4j left	Paired t-test	Fig. legend	12	virgin female mice, control	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p = 0.7363$	Fig and Fig. legend	$t(11)=0.3454$	n/a
4j right	Paired t-test	Fig. legend	12	virgin female mice, control	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p = 0.5863$	Fig and Fig. legend	$t(11)=0.5606$	n/a
5c	One-way repeated measure ANOVA	Fig. legend	18	single untis	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p = 9.51 \times 10^{-11}$	n/a	$F(3, 51) = 27.61$	n/a
5c	Holm-Sidak post-hoc multiple comparisons	Fig. legend	18	single untis	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p values for baseline vs. no contact: $4.51 \times 10^{-4}$ ; baseline vs. investigate: $3.73 \times 10^{-4}$ ; baseline vs. attack: $6.24 \times 10^{-5}$ ; no contact vs. investigate: 0.00339; no contact vs. attack: $2.59 \times 10^{-4}$ ; investigate vs. attack: 0.00139.	Fig and Fig. legend	n/a	n/a
5f	One-way repeated measure ANOVA	Fig. legend	9	single untis	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p = 3.38 \times 10^{-5}$	n/a	$F(3, 24) = 12.804$	n/a

5f	Holm-Sidak post-hoc multiple comparisons	Fig. legend	9	single untis	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p values for baseline vs. no contact: 0.0146; baseline vs. investigation: 0.0140; baseline vs. mounted: 0.0168; no contact vs. investigation: 0.0363; no contact vs. mounted: 0.0466; investigation vs. mounted: 0.0677.	Fig and Fig. legend	n/a	n/a
5g	Pearson product-moment correlation	Fig. legend	21	single untis	Fig and Fig. legend	individual data plots	Fig and Fig. legend	p=0.95	Fig and Fig. legend	R=-0.016	Fig.
5h	Pearson product-moment correlation	Fig. legend	103	single untis	Fig and Fig. legend	individual data plots	Fig and Fig. legend	p=0.85	Fig and Fig. legend	R=-0.02	Fig.
5i	Pearson product-moment correlation	Fig. legend	5	5 virgin female mice	Fig and Fig. legend	individual data plots	Fig and Fig. legend	p=0.013	Fig and Fig. legend	R=0.95	Fig.
6b	One-way ANOVA	Fig. legend	4 mice each	virgin and lactating female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p = 2.58 x 10 <sup>-6</sup>	n/a	F (4, 15) = 23.51	n/a
6b	Tukey's multiple comparisons	Fig. legend	4 mice each	virgin and lactating female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p values at for F-F (Virgin) vs. M-M: 0.4691; F-F (Virgin) vs. F-M: <0.0001; F-F (Virgin) vs. M-F: <0.0001; F-F (Virgin) vs. F-F (Lactation): 0.3091; M-M vs. F-M: 0.0006; M-M vs. M-F: 0.0002; M-M vs. F-F (Lactation): 0.9975; F-M vs. M-F: 0.9848; F-M vs. F-F (Lactation): 0.0011; M-F vs. F-F (Lactation): 0.0004.	Fig and Fig. legend	n/a	n/a
7e	Paired t-test	Fig. legend	4	virgin SW female mice; object	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p =0.1455	Fig and Fig. legend	t(3)=1.9552	n/a
7e	Paired t-test	Fig. legend	6	virgin SW female mice; adult male intruder	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p=0.0052	Fig and Fig. legend	t(5)=4.7386	n/a

7e	Paired t-test	Fig. legend	4	virgin C57BL/6 female mice; adult male intruder	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p=1.78 \times 10^{-4}$	Fig and Fig. legend	$t(3)=23.0683$	n/a
7e	Paired t-test	Fig. legend	6	virgin SW female mice; juvenile male intruder	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p=0.0086$	Fig and Fig. legend	$t(5)=4.1816$	n/a
7e	Paired t-test	Fig. legend	4	virgin SW female mice; adult female intruder	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p=0.0316$	Fig and Fig. legend	$t(3)=3.8170$	n/a
7e	Paired t-test	Fig. legend	5	Lactating SW female mice; juvenile male intruder	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p=0.0224$	Fig and Fig. legend	$t(4)=3.6192$	n/a
7e	Paired t-test	Fig. legend	5	Lactating SW female mice; adult female intruder	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p=0.0211$	Fig and Fig. legend	$t(4)=3.6846$	n/a
7e	Paired t-test	Fig. legend	7	Lactating SW female mice; adult male intruder	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p=3.70 \times 10^{-4}$	Fig and Fig. legend	$t(6)=7.1758$	n/a
7e	Paired t-test	Fig. legend	3	Lactating C57 female mice; juvenile male intruder	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p=0.0280$	Fig and Fig. legend	$t(2)=5.8542$	n/a
result, para 16	Paired t-test	result, para17	6	virgin female mice	result, para17	error bars are mean +/- SEM	result, para17	$p=0.0125$	result, para17	$t(5)=3.8129$	n/a
result, para 16	Paired t-test	result, para17	4	virgin female mice	result, para17	error bars are mean +/- SEM	result, para17	$p=0.037$	result, para17	$t(3)=3.6096$	n/a
8f left	Paired t-test	Fig. legend	3	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p=0.0167$	Fig and Fig. legend	$t(2)=7.6501$	n/a
8f right	Paired t-test	Fig. legend	3	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p=0.7544$	Fig and Fig. legend	$t(2)=0.3584$	n/a
8j left	One-way ANOVA	Fig. legend	3, 5, 4	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$F(2, 9) = 84.93$	Fig and Fig. legend	$P<0.0001$	n/a
8j left	Tukey's multiple comparisons	Fig. legend	3, 5, 4	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	object vs fight: $p=0.2732$ ; object vs mate: $p<0.0001$ ; fight vs mate: $p<0.0001$	Fig and Fig. legend	n/a	n/a
8j right	One-way ANOVA	Fig. legend	5, 5, 4	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$F(2, 11) = 29.93$	Fig and Fig. legend	$P<0.0001$	n/a
8j right	Tukey's multiple comparisons	Fig. legend	5, 5, 4	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	object vs fight: $p=0.0004$ ; object vs mate: $p<0.0001$ ; fight vs mate: $p=0.1830$	Fig and Fig. legend	n/a	n/a

s1b left	One-way ANOVA	Fig. legend	4, 6, 4	virgin SW female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	F (2, 11) = 7.736	Fig and Fig. legend	P=0.0080	n/a
s1b left	Tukey's multiple comparisons	Fig. legend	4, 6, 4	virgin SW female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	object vs juvenile :p=0.0080; object vs adult female:p=0.0302; juvenile vs adult female:p=0.8770	Fig and Fig. legend	n/a	n/a
s1b middle	One-way ANOVA	Fig. legend	3, 5, 5, 3, 7	Lactating SW female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	F (4, 18) = 15.07	Fig and Fig. legend	P<0.0001	n/a
s1b middle	Tukey's multiple comparisons	Fig. legend	3, 5, 5, 3, 7	Lactating SW female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	object vs juvenile:p=0.0018; object vs adult female:p=0.0184; object vs adult male(inves):p=0.6409; object vs adult male:p<0.0001; juv vs adult female:p=0.7093; juv vs adult male (inves):p=0.0462; juv vs adult male:p=0.1724; adult female vs adult male(inves):p=0.3235; adult female vs adult male:p=0.0116; adult male (inves) vs adult male:p=0.0005	Fig and Fig. legend	n/a	n/a
s1b right	Unpaired t-test	Fig. legend	3, 3	Lactating C57 female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p=0.0023	Fig and Fig. legend	t(4)=6.8818	n/a
s2f	Two-way repeated measure ANOVA	Fig. legend	8 each	lactating female mice, hM4Di and control	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	at different time points, p = 0.0003; between groups, p = 0.0258; and interaction, p = 0.0291.	n/a	at different time points, F(5,70) = 5.33; between groups, F(1,14) = 6.22; and interaction F(5,70) = 2.66.	n/a
s2f	Holm-Sidak post-hoc multiple comparisons	Fig. legend	8 each	lactating female mice, hM4Di and control	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p value on Postpartum Day 2: 0.4186; Day 3: 0.0078; Day 4: 0.9998; Day 5: 0.0252; Day 6: 1 and Day 7: 0.9349.	Fig and Fig. legend	n/a	n/a

s2g	Paired t-test	Fig. legend	8 each	lactating female mice, hM4Di and control	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	hM4Di: p = 0.0030; control: p=0.5504	Fig and Fig. legend	hM4Di: t(7)=4.4557; control:t(7)=0.6272	n/a
s2h	Paired t-test	Fig. legend	8 each	lactating female mice, hM4Di and control	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	hM4Di: p = 0.8241; control: p=0.5125	Fig and Fig. legend	hM4Di:t(7)=0.2307; control:t(7)=0.6898	
s2i	Two-way repeated measure ANOVA	Fig. legend	8 each	lactating female mice, hM4Di and control	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	at different time points, p = 0.9739; between groups, p = 0.4197; and interaction, p = 0.8857.	n/a	at different time points, F(5,70) = 0.17; between groups, F(1,14) = 0.69; and interaction F(5,70) = 0.34.	n/a
s2j	Paired t-test	Fig. legend	8	lactating female mice, hM4Di	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p = 0.3964	Fig and Fig. legend	t(7)=0.9032	n/a
s2k	Pearson product-moment correlation	Fig. legend	9 each	lactating female mice, hM4Di	Fig and Fig. legend	individual data plots	Fig and Fig. legend	anterior VMhvl: p=0.76; posterior VMHvl: p=0.0071; Arc:p=0.61	Fig and Fig. legend	anterior VMhvl: R=-0.12; posterior VMHvl: R=-0.82; Arc:R=0.20	Fig.
s3c	Paired t-test	Fig. legend	6	Virgin female mice GCamp	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p=0.6319	Fig and Fig. legend	t(5)=0.5097	n/a
s3f	Paired t-test	Fig. legend	4	lactating female mice GCamp	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p= 0.0416	Fig and Fig. legend	t(3)=3.4278	n/a
s4b	Paired t-test	Fig. legend	4 each	Virgin or lactating C57BL/6 female mice GCamp	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p=0.0786 p=4.89x 10 <sup>-4</sup> p=0.0461 p=0.0446 p=0.0367 p=0.0301	Fig and Fig. legend	t(3)=2.6254 t(3)=16.4530 t(3)=3.2893 t(3)=3.3337 t(3)=3.6019 t(3)=3.8935	n/a
s5f	Paired t-test	Fig. legend	13, 12, 14, 4	YFP and mcherry signals during various behaviors	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p values for investigation on juvenile: p=0.5252; attack juvenile:p=0.8119; investigation on adult male: p=0.5970; mounted by adult male: p=0.8845	Fig and Fig. legend	t values for investigation on juvenile: t(12)=0.6544;att ack juvenile: t(11)=0.2437; investigation on adult male: t(13)=0.5419; mounted by adult male: t(3)=0.1580	n/a
s6d left	Paired t-test	Fig. legend	8, 6	virgin female mice, hM4Di and control	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	hM4Di: p = 0.0039; control: p=0.8404	Fig and Fig. legend	hM4Di: t(7)=4.2285; control: t(5)=0.2122	n/a
s6d right	Paired t-test	Fig. legend	8, 6	virgin female mice, hM4Di and control	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	hM4Di: p = 0.0033; control: p=0.3993	Fig and Fig. legend	hM4Di: t(7)=4.3610; control: t(5)=0.9210	n/a
s6e	Paired t-test	Fig. legend	8, 6	virgin female mice, hM4Di and control	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	hM4Di: p = 0.6921; control:p=0.8621	Fig and Fig. legend	hM4Di: t(7)=0.4128; control: t(5)=0.1828	n/a



s6i left	Paired t-test	Fig. legend	5	Lactating female mice, hM4Di	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p = 0.0431$	Fig and Fig. legend	$t(4)=2.9240$	n/a
s6i right	Paired t-test	Fig. legend	5	Lactating female mice, hM4Di	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p = 0.0297$	Fig and Fig. legend	$t(4)=186.3783$	n/a
s6j left	Paired t-test	Fig. legend	5	Lactating female mice, hM4Di	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p = 0.7879$	Fig and Fig. legend	$t(4)=0.2877$	n/a
s6j right	Paired t-test	Fig. legend	4	Lactating female mice, hM4Di	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p = 0.7246$	Fig and Fig. legend	$t(3)=0.3869$	n/a
s8e left	Paired t-test	Fig. legend	10	virgin female mice, Chr2	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p=3.44 \times 10^{-4}$ $p=6.56 \times 10^{-4}$	Fig and Fig. legend	$t(9)=5.5768$ $t(9)=5.0874$	n/a
s8e right	Paired t-test	Fig. legend	10	virgin female mice, Chr2	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p=0.0631$ $p=0.0202$	Fig and Fig. legend	$t(9)=2.1198$ $t(9)=2.8163$	n/a
s8f	One-way ANOVA	Fig. legend	5, 4, 6	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$F(2, 12) = 5.825$	n/a	$P=0.0171$	n/a
s8f	Tukey's multiple comparisons	Fig. legend	5, 4, 6	virgin female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	object vs investigate: $p=0.3626$ ; object vs mount: $p=0.0135$ ; investigate vs mount: $p=0.2395$	Fig and Fig. legend	n/a	n/a
s9f left	Paired t-test	Fig. legend	5	lactating female mice, Chr2	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p=0.0047$ $p=0.0260$	Fig and Fig. legend	$t(4)=5.6938$ $t(4)=3.4539$	n/a
s9f right	Paired t-test	Fig. legend	5	Lactating female mice, Chr2	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p=0.0258$ $p=0.0458$	Fig and Fig. legend	$t(4)=3.4605$ $t(4)=2.8622$	n/a
s10c	One-way repeated measure ANOVA	Fig. legend	6	Virgin SW female mice, Chr2	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$F(3, 15) = 1.12$	n/a	$p=0.3712$	n/a
s10d	One-way repeated measure ANOVA	Fig. legend	6	Virgin SW female mice, Chr2	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$F(3, 15) = 2.01$	n/a	$p=0.1553$	n/a
s10g	One-way repeated measure ANOVA	Fig. legend	5	Lactating C57BL/6 female mice, Chr2	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$F(3, 12) = 0.39$	n/a	$p=0.7644$	n/a
s10h	One-way repeated measure ANOVA	Fig. legend	5	Lactating C57BL/6 female mice, Chr2	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$F(3, 12) = 0.53$	n/a	$p=0.6733$	n/a
s11a	One-way repeated measure ANOVA	Fig. legend	22	single units	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$F(2, 42) = 2.75$	n/a	$p = 0.0756$	n/a

s11b	One-way repeated measure ANOVA	Fig. legend	26	single units	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	F (3, 75) = 3.73	n/a	p = 0.0148	n/a
s11b	Holm-Sidak post-hoc multiple comparisons	Fig. legend	26	single units	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	p values for baseline vs. no contact: 0.415; baseline vs. investigation: 0.238; baseline vs. attack: 0.137; no contact vs. investigation: 0.358; no contact vs. attack: 0.263; investigation vs. attack: 0.332.	n/a	n/a	n/a
s11c	Pearson product-moment correlation	Fig. legend	103 each	single units	Fig and Fig. legend	individual data plots	Fig and Fig. legend	p=0.28 p=0.84 p=0.77	Fig and Fig. legend	R=-0.11 R=-0.020 R=0.029	Fig.
s11d	Pearson product-moment correlation	Fig. legend	103	single units	Fig and Fig. legend	individual data plots	Fig and Fig. legend	p = 5.68 x 10 <sup>-7</sup>	Fig and Fig. legend	R=0.47	Fig.
s11e	Pearson product-moment correlation	Fig. legend	103	single units	Fig and Fig. legend	individual data plots	Fig and Fig. legend	p = 2.05 x 10 <sup>-29</sup>	Fig and Fig. legend	R=0.85	Fig.
s12b	Unpaired t-test	Fig. legend	fight, and mate animals: -1.4mm: 5, 6; -1.6mm: 5, 6; -1.8mm: 7, 6; -2.0mm: 3, 3	virgin and lactating SW female mice	Fig and Fig. legend	mean presented by dashed line	Fig and Fig. legend	-1.4mm: p = 0.2094; -1.6mm: p = 0.0002; -1.8mm: p = 7 x 10 <sup>-5</sup> ; -2.0mm: p = 0.0010	Fig and Fig. legend	t(9)=1.3518, t(9)=6.1381, t(11)=6.1657, t(4)=8.5979	n/a
s12c	Unpaired t-test	Fig. legend	fight, and mate animals: -1.4mm: 3, 3; -1.6mm: 3, 3; -1.8mm: 3, 4; -2.0mm: 4, 4	virgin and lactating C57BL/6 female mice	Fig and Fig. legend	mean presented by dashed line	Fig and Fig. legend	-1.4mm: p = 0.4211; -1.6mm: p = 0.0113; -1.8mm: p = 0.0015; -2.0mm: p = 0.0465	Fig and Fig. legend	t(4)=0.8956, t(4)=4.4441, t(5)=6.3277, t(6)=2.5011	n/a
s12d left	Unpaired t-test	Fig. legend	-1.4mm: 3, 4; -1.6mm: 3, 6; -1.8mm: 4, 6; -2.0mm: 3, 6	virgin SW female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	-1.4mm: p = 0.0003; -1.6mm: p = 0.0228; -1.8mm: p = 0.0020; -2.0mm: p = 0.0118	Fig and Fig. legend	t(5)=8.7001, t(7)=2.9055, t(8)=4.5061, t(7)=3.3793	n/a
s12d right	Unpaired t-test	Fig. legend	-1.4mm: 3, 5; -1.6mm: 3, 5; -1.8mm: 3, 7; -2.0mm: 3, 4	lactating SW female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	-1.4mm: p = 0.0088; -1.6mm: p = 0.0001; -1.8mm: p = 0.0079; -2.0mm: p = 0.0078	Fig and Fig. legend	t(6)=3.8136, t(6)=8.5879, t(8)=3.5168, t(5)=4.2898	n/a

s12e left	Paired t-test	Fig. legend	4	virgin SW female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p = 0.8645$	Fig and Fig. legend	$t(3)=0.1858$	n/a
s12d right	Paired t-test	Fig. legend	3	lactating SW female mice	Fig and Fig. legend	error bars are mean +/- SEM	Fig and Fig. legend	$p = 0.0359$	Fig and Fig. legend	$t(2)=5.1351$	n/a
s15d	Unpaired t-test	Fig. legend	fight, and mate animals: -1.4mm: 4, 3; -1.6mm: 4, 3; -1.8mm: 4, 3; -2.0mm: 3, 3	male mice	Fig and Fig. legend	mean presented by dashed line	Fig and Fig. legend	-1.4mm: $p = 0.2085$ ; -1.6mm: $p = 0.8239$ ; -1.8mm: $p = 0.1345$ ; -2.0mm: $p = 0.9449$	Fig and Fig. legend	$t(5)=1.4433$ , $t(5)=0.2345$ , $t(5)=1.7838$ , $t(4)=0.0735$	n/a

## Supplementary Note 1

To determine whether the c-Fos activation in the VMHvl observed after fighting (**Fig. 1**) is functionally relevant, we suppressed the VMHvl activity in lactating SW mice. We injected an AAV expressing hM4Di-mCherry or control fluorophore mcherry bilaterally into the VMHvl of virgin female mice (**Supplementary Fig. 2a-b**) and one week after viral injection, we paired each female with an adult male mouse until midterm pregnancy. Between postpartum day 2 to 7, we injected saline and clozapine-N-oxide (CNO, the engineered ligand of hM4Di) intraperitoneally on interleaved days (**Supplementary Fig.2c**). We confirmed that CNO application significantly reduced the spiking activity of hM4Di-mCherry expressing VMHvl cells using *in vitro* slice recording (**Supplementary Fig. 2d**). Thirty minutes after injection, we introduced a male intruder into the home cage of the test animal for 10 min and assessed aggression. On saline injected days, females attacked the intruder immediately and repeatedly (Latency (Mean  $\pm$  STD):  $4.2 \pm 0.86$  s; episodes:  $33.3 \pm 2.3$ ; duration:  $37.0 \pm 7.3$  s, N = 8 animals). After CNO injection, both the number and duration of attacks were significantly reduced (episodes:  $18.0 \pm 3.1$ , duration:  $16.1 \pm 4.4$  s) although the latency to first attack ( $4.0 \pm 0.71$  s) did not change (**Supplementary Fig. 2e-h**). Neither the duration of investigation of the male nor the latency to retrieve pups changed after CNO injection, suggesting that the manipulation did not affect locomotion or social behaviors in general (**Supplementary Fig. 2i-j**). Post hoc histological analysis revealed that the level of aggression suppression was significantly correlated with the number of hM4Di-mCherry expressing cells in the posterior VMHvl but not the anterior VMHvl or ARC (**Supplementary Fig. 2k**).