2

3 **Transient nicotine exposure in early adolescent male mice freezes their dopamine circuits in an**
4 **immature state**

5

6 **Supplementary Figure 1.** *Supplementary data for Figure 1*. (**A**) Individual weight measurements across the

7 entire oral self-administration task for adolescent-pretreated (*Left*) and adult-pretreated mice (*Right*). (**B**)

8 Actograms of drinking behavior over the duration of the Two Bottle Choice task for adult mice pre-treated in

9 adolescence (*left*) or in adulthood (*right*). Shaded regions represent mean volumes across the groups for

10 each solution tested. (**C**) Sucrose solution and overall liquid consumption per day for adolescent-pretreated

11 (*Left*) and adult-pretreated mice (*Right*) during the Sucrose nicotine oral self-administration testing. (**D**)

12 Nicotine solution and overall liquid consumption per day for adolescent-pretreated (*Left*) and adult-

13 pretreated mice (*Right*) during the nicotine oral self-administration testing. (**E**) Individual data for Figure 1B

14 *center*, % nicotine of total intake for mice treated with NIC or SAC in adolescence. (**F**) Individual data for

15 Figure 1C *center*, % nicotine of total intake for mice treated with NIC or SAC in adulthood. (**G**) Percent

16 preference for left side bottle across the entire oral self-administration task for adolescent-pretreated (*Left*)

17 and adult-pretreated mice (*Right*). (**H**) Individual data for Figure 1E, solid lines indicate group means while

18 dotted lines are individual animals for mice treated with NIC or SAC in adolescence. (**I**) Open arm entries

19 (*Left*) and Distance traveled (cm, *Right*) in the EOM task for adolescent-pretreated mice. (**J**) Individual data

20 for Figure 1H, solid lines indicate group means while dotted lines are individual animals for mice treated with

21 NIC or SAC in adulthood. (**K**) Open arm entries (*Left*) and Distance traveled (cm, *Right*) in the EOM task for

22 adult-pretreated mice. All line graphs are presented as mean values ± SEM. *p < 0.05, **p < 0.01, ***p <

23 0.01, ns = not significant. Detailed Statistics are available in Supplementary Table 4. Source data are

24 provided as a Source Data file.
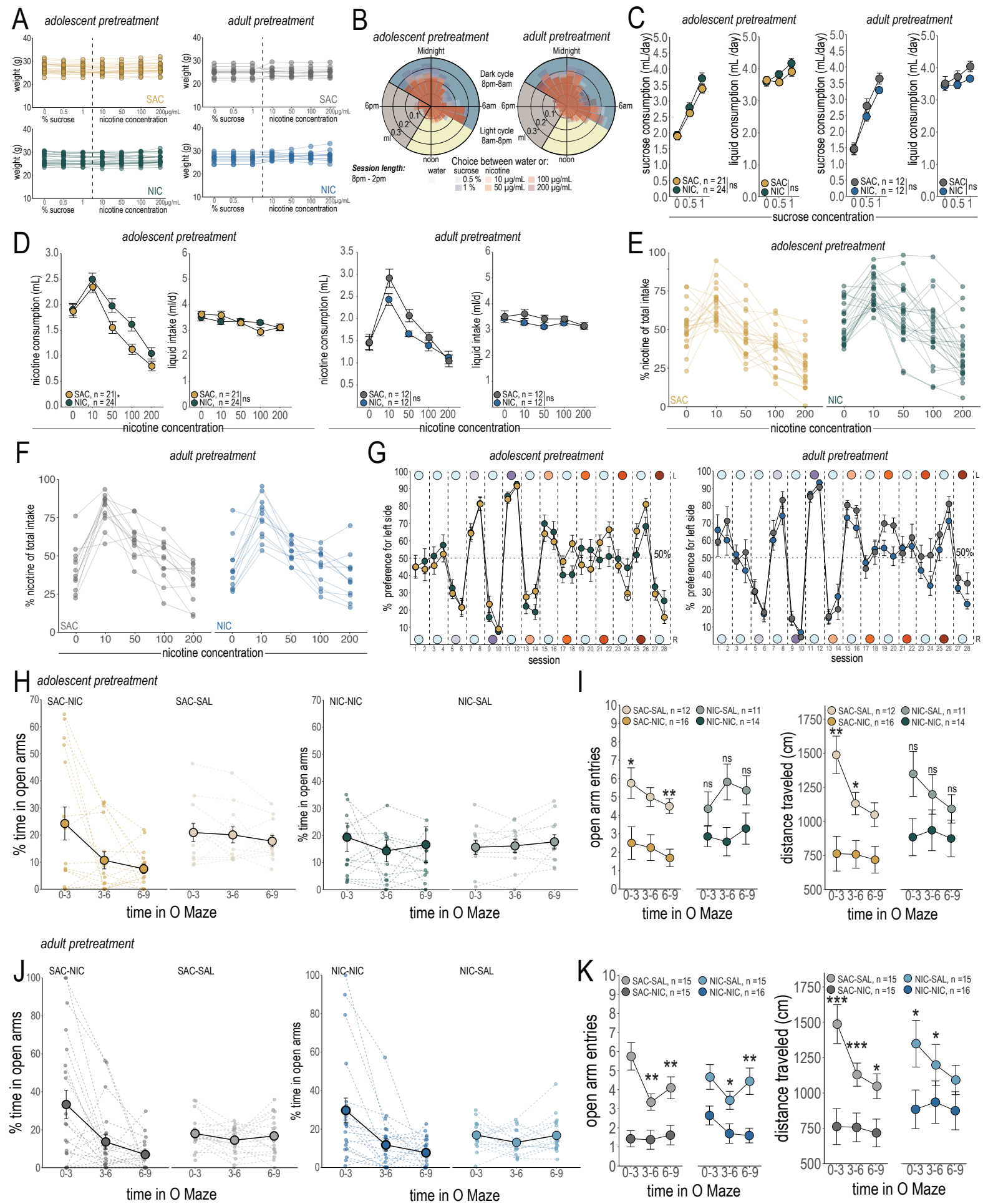
Supplementary Figure 1

Supplementary Table 1

Detailed Statistics for Supplementary Figure 1

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
weight - adolescents						
SAC = 21, NIC = 24	Shapiro-Wilk normality test		W	0.9723	0.0000	Fig S1A
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 0%	W	237.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 0.5%	W	250.5000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 1%	W	256.5000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 10µg/mL	W	264.5000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 50µg/mL	W	256.5000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 100µg/mL	W	249.5000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 200µg/mL	W	251.5000	1.0000[*]	
weight - adults						
SAC = 12, NIC = 12	Shapiro-Wilk normality test		W	0.9771	0.0070	Fig S1A
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 0%	W	60.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 0.5%	W	60.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 1%	W	60.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 10µg/mL	W	71.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 50µg/mL	W	75.5000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 100µg/mL	W	81.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 200µg/mL	W	75.0000	1.0000[*]	
sucrose consumption (mL/day) - adolescent pretreatment						

[*] Holm correction for multiple comparisons

Supplementary Table 1

Detailed Statistics for Supplementary Figure 1

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
SAC = 21, NIC = 24	Shapiro-Wilk normality test		W	0.9223	0.5218	Fig S1C
	Two-way mixed ANOVA	Interaction	F	0.9197	0.4025	
		Treatment (between subj)	F	1.4590	0.2337	
		Sucrose conc (within subjects)	F	119.6943	0.0000	

total liquid intake (mL/day) - adolescent pretreatment

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
SAC = 21, NIC = 24	Shapiro-Wilk normality test		W	0.8878	0.5218	Fig S1C
	Two-way mixed ANOVA	Interaction	F	1.9069	0.4025	
		Treatment (between subj)	F	1.0621	0.2337	
		Sucrose conc (within subjects)	F	12.6504	0.0000	

sucrose consumption (mL/day) - adult pretreatment

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
SAC = 12, NIC = 12	Shapiro-Wilk normality test		W	0.9088	0.4287	Fig S1C
	Two-way mixed ANOVA	Interaction	F	0.5978	0.5531	
		Treatment (between subj)	F	2.5198	0.1174	
		Sucrose conc (within subjects)	F	0.0534	0.9480	

total liquid intake (mL/day) - adult pretreatment

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
SAC = 12, NIC = 12	Shapiro-Wilk normality test		W	0.8711	0.2307	Fig S1C
	Two-way mixed ANOVA	Interaction	F	0.4784	0.6220	
		Treatment (between subj)	F	3.1207	0.0821	
		Sucrose conc (within subjects)	F	1.3045	0.2785	

nicotine consumption (mL/day) - adolescent pretreatment

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
SAC = 21, NIC = 24	Shapiro-Wilk normality test		W	0.9888	0.0769	Fig S1D
	Two-way mixed ANOVA	Interaction	F	1.7830	0.1344	

*Holm correction for multiple comparisons

Supplementary Table 1

Detailed Statistics for Supplementary Figure 1

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
		Treatment (between subj)	F	5.8579	0.0198	
		nicotine conc (within subjects)	F	62.9866	0.0000	

total liquid intake (mL/day) - nic choice - adolescent pretreatment

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
SAC = 21, NIC = 24	Shapiro-Wilk normality test		W	0.9841	0.0127	Fig S1D
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 0µg/mL	W	243.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 10µg/mL	W	205.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 50µg/mL	W	274.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 100µg/mL	W	312.5000	0.8610[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 100µg/mL	W	259.0000	1.0000[*]	

nicotine consumption (mL/day) - adult pretreatment

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
SAC = 12, NIC = 12	Shapiro-Wilk normality test		W	0.9664	0.0043	Fig S1D
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 0µg/mL	W	243.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 10µg/mL	W	205.0000	0.3130[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 50µg/mL	W	274.0000	0.0829[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 100µg/mL	W	312.5000	0.8564[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 100µg/mL	W	259.0000	1.0000[*]	

total liquid intake (mL/day) - nic choice - adult pretreatment

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
SAC = 12, NIC = 12	Shapiro-Wilk normality test		W	0.9770	0.0374	Fig S1D
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 0µg/mL	W	67.0000	1.0000[*]	

[*] Holm correction for multiple comparisons

Supplementary Table 1

Detailed Statistics for Supplementary Figure 1

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 10µg/mL	W	44.0000	0.4494[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 50µg/mL	W	37.0000	0.2319[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 100µg/mL	W	49.0000	0.5818[*]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC at 100µg/mL	W	73.0000	1.0000[*]	

Open arm entries - adolescent pretreatment

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
SAC + SAL = 12, SAC + NIC = 16,	Shapiro-Wilk normality test		W	0.9280	0.0000	Fig S1I
NIC + SAL = 11, NIC + NIC = 14	Kruskal-Wallis rank sum test	All groups, 0-3 min	Kruskal-Wallis chi-squared	11.1952	0.0107	
	Kruskal-Wallis rank sum test	All groups, 3-6 min	Kruskal-Wallis chi-squared	11.7069	0.0085	
	Kruskal-Wallis rank sum test	All groups, 6-9 min	Kruskal-Wallis chi-squared	14.1702	0.0027	
	Wilcoxon rank sum test with continuity correction	NIC-SAL vs NIC-NIC, 0-3 min	W	53.5000	0.5292[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs SAC-NIC, 0-3 min	W	38.0000	0.0279[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs NIC-SAL, 0-3 min	W	48.0000	0.5292[*]	
	Wilcoxon rank sum test with continuity correction	SAC-NIC vs NIC-NIC, 0-3 min	W	144.5000	0.5292[*]	
	Wilcoxon rank sum test with continuity correction	NIC-SAL vs NIC-NIC, 3-6 min	W	35.0000	0.0707[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs SAC-NIC, 3-6 min	W	45.5000	0.0707[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs NIC-SAL, 3-6 min	W	77.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC-NIC vs NIC-NIC, 3-6 min	W	122.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	NIC-SAL vs NIC-NIC, 6-9 min	W	49.5000	0.4067[*]	

[*] Holm correction for multiple comparisons

Supplementary Table 1

Detailed Statistics for Supplementary Figure 1

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs SAC-NIC, 6-9 min	W	26.5000	0.0043[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs NIC-SAL, 6-9 min	W	83.5000	0.4663[*]	
	Wilcoxon rank sum test with continuity correction	SAC-NIC vs NIC-NIC, 6-9 min	W	140.5000	0.4663[*]	

Distance traveled EOM - adolescent pretreatment

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
SAC + SAL = 12, SAC + NIC = 16, NIC + SAL = 11, NIC + NIC = 14	Shapiro-Wilk normality test		W	0.9809	0.0265	Fig S1I
	Kruskal-Wallis rank sum test	All groups, 0-3 min	Kruskal-Wallis chi-squared	14.4259	0.0024	
	Kruskal-Wallis rank sum test	All groups, 3-6 min	Kruskal-Wallis chi-squared	8.5321	0.0362	
	Kruskal-Wallis rank sum test	All groups, 6-9 min	Kruskal-Wallis chi-squared	6.7473	0.0804	
	Wilcoxon rank sum test with continuity correction	NIC-SAL vs NIC-NIC, 0-3 min	W	40.0000	0.1371[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs SAC-NIC, 0-3 min	W	30.0000	0.0094[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs NIC-SAL, 0-3 min	W	54.0000	0.8837[*]	
	Wilcoxon rank sum test with continuity correction	SAC-NIC vs NIC-NIC, 0-3 min	W	131.0000	0.8837[*]	
	Wilcoxon rank sum test with continuity correction	NIC-SAL vs NIC-NIC, 3-6 min	W	54.0000	0.6541[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs SAC-NIC, 3-6 min	W	39.0000	0.0349[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs NIC-SAL, 3-6 min	W	79.0000	0.8834[*]	
	Wilcoxon rank sum test with continuity correction	SAC-NIC vs NIC-NIC, 3-6 min	W	130.0000	0.8834[*]	
	Wilcoxon rank sum test with continuity correction	NIC-SAL vs NIC-NIC, 6-9 min	W	57.0000	0.8572[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs SAC-NIC, 6-9 min	W	49.0000	0.1235[*]	

[*] Holm correction for multiple comparisons

Supplementary Table 1

Detailed Statistics for Supplementary Figure 1

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs NIC-SAL, 6-9 min	W	71.0000	0.8572[*]	
	Wilcoxon rank sum test with continuity correction	SAC-NIC vs NIC-NIC, 6-9 min	W	138.0000	0.8572[*]	

Open arm entries - adult pretreatment

| N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
SAC + SAL = 15, SAC + NIC = 15,	Shapiro-Wilk normality test		W	0.8975	0.0000	Fig S1K
NIC + SAL = 15, NIC + NIC = 16	Kruskal-Wallis rank sum test	All groups, 0-3 min	Kruskal-Wallis chi-squared	25.7673	0.0000	
	Kruskal-Wallis rank sum test	All groups, 3-6 min	Kruskal-Wallis chi-squared	20.4812	0.0001	
	Kruskal-Wallis rank sum test	All groups, 6-9 min	Kruskal-Wallis chi-squared	22.0303	0.0001	
	Wilcoxon rank sum test with continuity correction	NIC-SAL vs NIC-NIC, 0-3 min	W	100.5000	0.0792[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs SAC-NIC, 0-3 min	W	47.0000	0.0792[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs NIC-SAL, 0-3 min	W	149.5000	0.3767[*]	
	Wilcoxon rank sum test with continuity correction	SAC-NIC vs NIC-NIC, 0-3 min	W	284.5000	0.0938[*]	
	Wilcoxon rank sum test with continuity correction	NIC-SAL vs NIC-NIC, 3-6 min	W	86.5000	0.0172[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs SAC-NIC, 3-6 min	W	78.5000	0.0020[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs NIC-SAL, 3-6 min	W	181.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	SAC-NIC vs NIC-NIC, 3-6 min	W	223.0000	1.0000[*]	
	Wilcoxon rank sum test with continuity correction	NIC-SAL vs NIC-NIC, 6-9 min	W	69.0000	0.0043[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs SAC-NIC, 6-9 min	W	86.0000	0.0043[*]	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs NIC-SAL, 6-9 min	W	188.5000	1.0000[*]	

[*] Holm correction for multiple comparisons

Supplementary Table 1

Detailed Statistics for Supplementary Figure 1

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
	Wilcoxon rank sum test with continuity correction	SAC-NIC vs NIC-NIC, 6-9 min	W	224.0000	1.0000*	

Distance traveled EOM - adult pretreatment

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
SAC + SAL = 15, SAC + NIC = 15,	Shapiro-Wilk normality test		W	0.9697	0.0001	Fig S1K
NIC + SAL = 15, NIC + NIC = 16	Kruskal-Wallis rank sum test	All groups, 0-3 min	Kruskal-Wallis chi-squared	26.7687	0.0000	
	Kruskal-Wallis rank sum test	All groups, 3-6 min	Kruskal-Wallis chi-squared	21.1452	0.0001	
	Kruskal-Wallis rank sum test	All groups, 6-9 min	Kruskal-Wallis chi-squared	9.8571	0.0198	
	Wilcoxon rank sum test with continuity correction	NIC-SAL vs NIC-NIC, 0-3 min	W	87.0000	0.0205*	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs SAC-NIC, 0-3 min	W	42.0000	0.0000*	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs NIC-SAL, 0-3 min	W	173.0000	0.8493*	
	Wilcoxon rank sum test with continuity correction	SAC-NIC vs NIC-NIC, 0-3 min	W	260.0000	0.3934*	
	Wilcoxon rank sum test with continuity correction	NIC-SAL vs NIC-NIC, 3-6 min	W	86.0000	0.0188*	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs SAC-NIC, 3-6 min	W	74.0000	0.0016*	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs NIC-SAL, 3-6 min	W	189.0000	1.0000*	
	Wilcoxon rank sum test with continuity correction	SAC-NIC vs NIC-NIC, 3-6 min	W	223.0000	1.0000*	
	Wilcoxon rank sum test with continuity correction	NIC-SAL vs NIC-NIC, 6-9 min	W	118.0000	0.2165*	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs SAC-NIC, 6-9 min	W	114.0000	0.0510*	
	Wilcoxon rank sum test with continuity correction	SAC-SAL vs NIC-SAL, 6-9 min	W	194.0000	1.0000*	
	Wilcoxon rank sum test with continuity correction	SAC-NIC vs NIC-NIC, 6-9 min	W	216.0000	1.0000*	

*Holm correction for multiple comparisons

25   **Supplementary Figure 2.** *Supplementary data for Figure 2*. (**A**) Experimental strategy. (**B**) Volcano plots

26   showing differential cFos expression across brain regions following an injection of saline for adolescent-

27   pretreated (*Left*) and adult-pretreated mice (*Right*). (**C-D**) Correlation matrices for relationships between

28   cFos expression in brain regions following an injection of saline in adolescent-pretreated (**C**) and adult-

29   pretreated mice (**D**). (**E**) Correlation matrices for relationships between cFos expression in brain regions

30   following an injection of nicotine in adult-pretreated mice. (**F**) Voxel-by-voxel analysis reveals no change in

31   reactivity to nicotine within the VTA and DA terminal regions in adult-pretreated mice. (**G**) Full networks

32   derived from correlation matrices in Fig 2C and organized into communities with Louvain community

33   analysis. Source data are provided as a Source Data file.
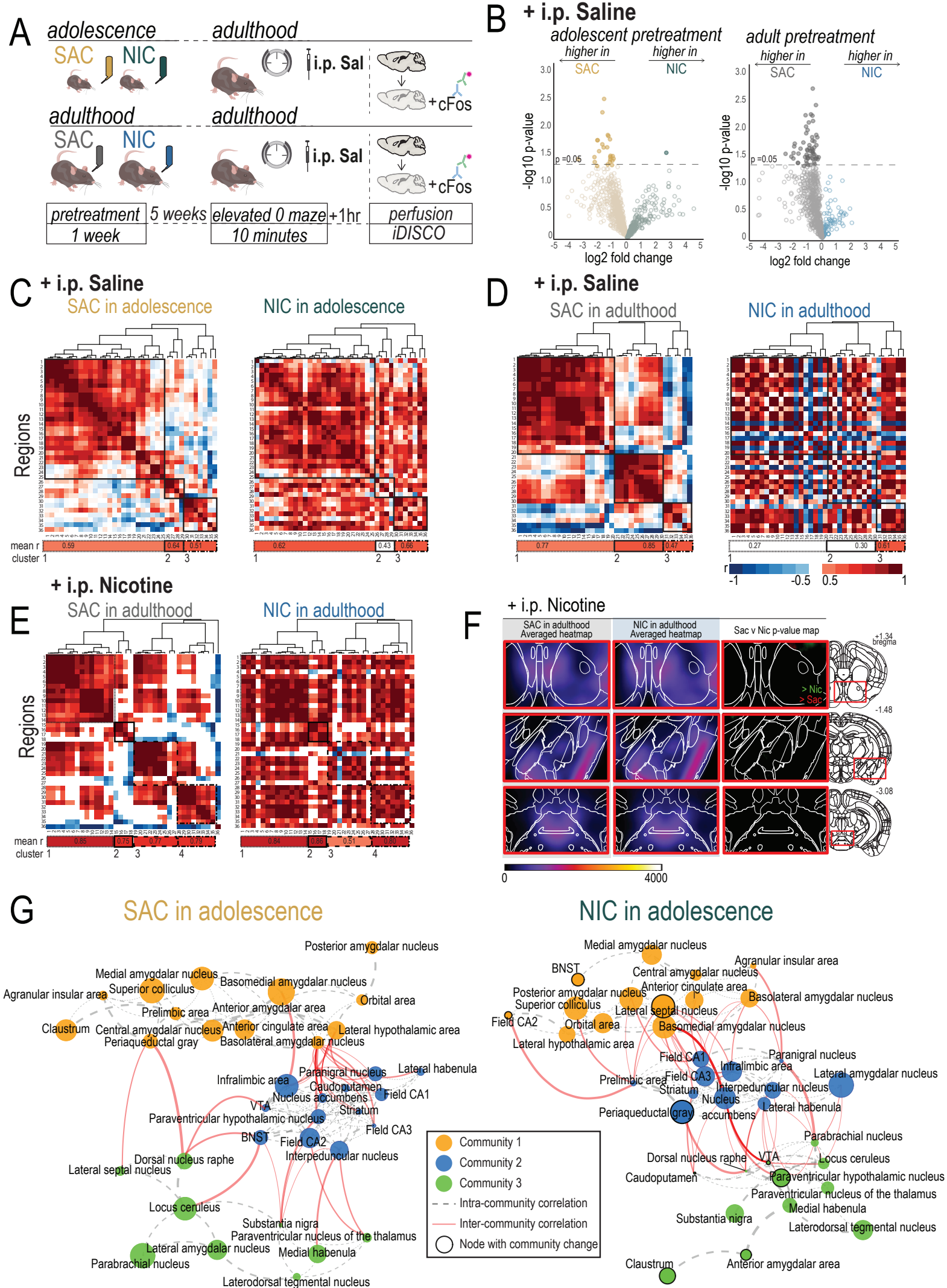
Supplementary Figure 2

34 **Supplementary Figure 3**. *Supplementary data for Figure 3*. (**A**) Experimental design for DA terminal

35 density analysis. (**B**) Tyrosine Hydroxylase (TH)+ labeling in DA terminal regions. (Core = NAc Core, MShell

36 = NAc Medial Shell, LShell = NAc Lateral Shell, CeA = Central Amygdala, BLA = Basolateral Amygdala,

37 CPu = Caudate-Putamen). (**C**) Confocal image processing for bouton segmentation. (**D**) Bouton density

38 counts across the NAc (*Left*) and the AMG (*Right*). (**E**) *Left* : Nicotine current traces were analyzed and

39 neurons were found to show two types of responses to nicotine: monophasic (one component) and bi-

40 phasic (with a fast and slow component). More neurons from adult mice pretreated with NIC in adolescence

41 showed a biphasic response than those treated with SAC. *Center*: Nicotine currents in neurons from mice

42 treated with NIC in adolescence showed a lower τ indicative of a faster current decay. *Right*: Less charge is

43 transferred in response to a nicotine puff in neurons from mice treated with NIC in adolescence. (**F**) Average

44 change in NMDAR currents following application of Ifenprodil (5 mM) to VTA DA neurons (SAC N = 4, n = 7;

45 NIC N = 4, n = 7). (**G**) Paired pulse ratio measurements for VTA DA neurons of adolescent-pretreated (*Top*)

46 and adult-pretreated mice (*Bottom*). (**H**) sEPSCs onto DA neurons measured before and after nicotine puff

47 (*Left*) sEPSC frequency was reduced at baseline and after nicotine puff in adult mice pretreated with NIC in

48 adolescence in comparison to mice pretreated with SAC (*Top row*), however NIC pretreated mice showed a

49 greater augmentation (% of baseline) in response to the nicotine puff (*Right*). Mice pretreated with NIC in

50 adulthood showed no differences from mice pretreated with SAC in adulthood (*Bottom row*). All bar graphs

51 are presented as mean values ± SEM. *p < 0.05, **p < 0.01, ***p < 0.01. Detailed Statistics are available in

52 Supplementary Table 5. Source data are provided as a Source Data file.

53
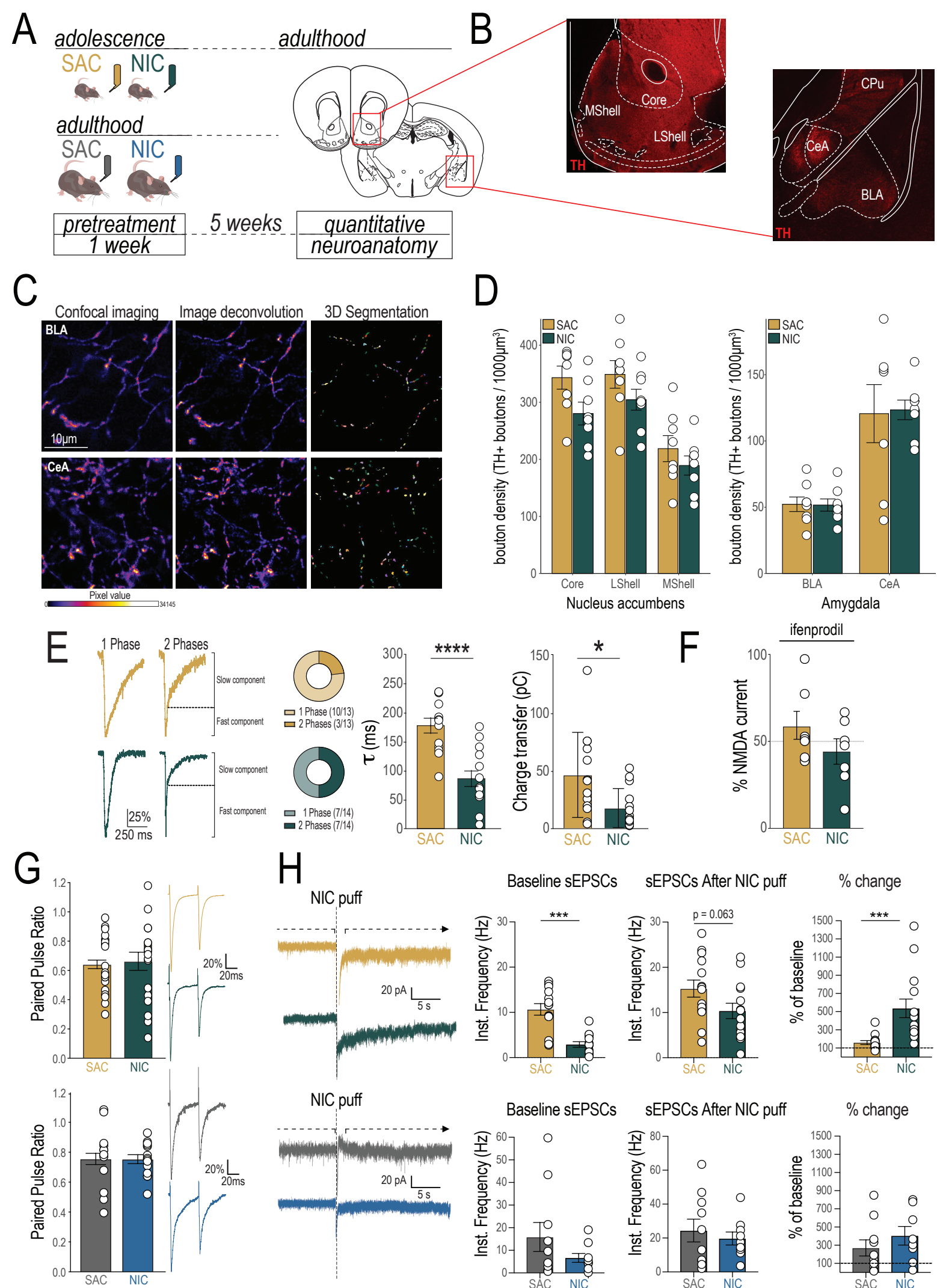
Supplementary Figure 3

Supplementary Table 2

Detailed Statistics for Supplementary Figure 3

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
NAc boutons						
SAC = 8, NIC = 8	Shapiro-Wilk normality test		W	0.9719	0.3007	Fig S3D
	Two-way mixed ANOVA	Interaction	F	1.1643	0.3268	
		Treatment (between subj)	F	3.0443	0.1029	
		Region (within subjects)	F	74.5824	0.0000	
Amg boutons						
SAC = 7, NIC = 8	Shapiro-Wilk normality test		W	0.8895	0.0040	Fig S3D
	Wilcoxon rank sum test with continuity correction	SAC vs NIC in the BLA	W	34.0000	1.0000[1]	
	Wilcoxon rank sum test with continuity correction	SAC vs NIC in the CeA	W	31.0000	1.0000[1]	
	Wilcoxon rank sum test with continuity correction	BLA vs CeA in SAC	W	11.0000	0.1686[1]	
	Wilcoxon rank sum test with continuity correction	BLA vs CeA in NIC	W	0.0000	0.0038[1]	
Weighted Tau, nicotine current						
NIC = 2 mice, 14 neurons; SAC = 2 mice, 13 neurons	Shapiro-Wilk normality test		W	0.9567	0.3102	Fig S3E
	Welch Two Sample t-test	SAC vs NIC	t	-6.7097	0.0000	
Charge Transferred - nicotine current						
NIC = 2 mice, 14 neurons; SAC = 2 mice, 13 neurons	Shapiro-Wilk normality test		W	0.8268	0.0004	Fig S3E
	Wilcoxon rank sum test with continuity correction	SAC vs NIC	W	141.0000	0.0163	
% NMDA current - ifenprodil						
NIC = 4 mice, 7 neurons; SAC = 4 mice, 7 neurons	Shapiro-Wilk normality test		W	0.9679	0.8470	Fig S3F
	Welch Two Sample t-test	SAC vs NIC	t	-1.3859	0.1912	

[1] Holm correction for multiple comparisons

Supplementary Table 2

Detailed Statistics for Supplementary Figure 3

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
PPR - adolescent pretreatment						
NIC = 5 mice, 20 neurons; SAC = 5 mice, 19 neurons	Shapiro-Wilk normality test		W	0.9746	0.5122	Fig S3G
	Welch Two Sample t-test	SAC vs NIC	t	0.3017	0.7653	
PPR - adult pretreatment						
NIC = 4 mice, 12 neurons; SAC = 4 mice, 14 neurons	Shapiro-Wilk normality test		W	0.9705	0.6154	Fig S3G
	Welch Two Sample t-test	SAC vs NIC	t	-0.0377	0.9702	
Baseline sEPSCs - adolescent pretreatment						
NIC = 2 mice, 14 neurons; SAC = 2 mice, 14 neurons	Shapiro-Wilk normality test		W	0.9020	0.0127	Fig S3H
	Wilcoxon rank sum test with continuity correction	SAC vs NIC	W	18.0000	0.0003	
After sEPSCs - adolescent pretreatment						
NIC = 2 mice, 14 neurons; SAC = 2 mice, 14 neurons	Shapiro-Wilk normality test		W	0.9656	0.4681	Fig S3H
	Welch Two Sample t-test	SAC vs NIC	t	-1.9394	0.0635	
Percent sEPSCs - adolescent pretreatment						
NIC = 2 mice, 14 neurons; SAC = 2 mice, 14 neurons	Shapiro-Wilk normality test		W	0.7356	0.0000	Fig S3H
	Wilcoxon rank sum test with continuity correction	SAC vs NIC	W	183.0000	0.0001	
Baseline sEPSCs - adult pretreatment						
NIC = 5 mice, 8 neurons; SAC = 5 mice, 10 neurons	Shapiro-Wilk normality test		W	0.6963	0.0001	Fig S3H
	Wilcoxon rank sum test with continuity correction	SAC vs NIC	W	39.0000	0.6534	
After sEPSCs - adult pretreatment						
NIC = 5 mice, 8 neurons; SAC = 5 mice, 10 neurons	Shapiro-Wilk normality test		W	0.9171	0.1001	Fig S3H

[1] Holm correction for multiple comparisons

Supplementary Table 2

Detailed Statistics for Supplementary Figure 3

N	Test	Factor	Statistic	Statistic Value	p value	Corresponding Figure
	Welch Two Sample t-test	SAC vs NIC	t	-0.6067	0.5536	
Percent sEPSCs - adult pretreatment						
NIC = 5 mice, 8 neurons; SAC = 5 mice, 10 neurons	Shapiro-Wilk normality test		W	0.8870	0.0343	Fig S3H
	Wilcoxon rank sum test with continuity correction	SAC vs NIC	W	52.0000	0.3069	

[1] Holm correction for multiple comparisons