SUPPLEMENT

PERINATAL DIAZINON EXPOSURE COMPROMISES THE DEVELOPMENT OF ACETYLCHOLINE AND SEROTONIN SYSTEMS

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TABLE S1: Body and Brain Region Weights (mean ± SE)

	Postnatal Age (days)	Male			Female		
		Control	Diazinon 0.5 mg/kg	Diazinon 1 mg/kg	Control	Diazinon 0.5 mg/kg	Diazinon 1 mg/kg
Body Weight (g)	30	124 ± 4	123 ± 6	119 ± 6	107 ± 6	106 ± 5	102 ± 4
	60	356 ± 11	335 ± 9	363 ± 11	222 ± 7	226 ± 5	224 ± 6
	100	517 ± 13	467 ± 8	501 ± 9	275 ± 11	280 ± 5	272 ± 6
	150	580 ± 13	569 ± 18	553 ± 10	300 ± 12	301 ± 9	316 ± 10
Region Weight (mg)							
frontal/parietal cortex	30	222 ± 7	243 ± 6	239 ± 12	226 ± 9	223 ± 8	239 ± 7
	60	268 ± 7	249 ± 11	261 ± 8	242 ± 9	253 ± 8	256 ± 6
	100	275 ± 8	272 ± 10	269 ± 10	250 ± 8	255 ± 9	264 ± 5
	150	270 ± 5	253 ± 9	271 ± 8	269 ± 11	258 ± 9	261 ± 5
temporal/occipital cortex	30	159 ± 6	147 = 6	177 = 9	153 ± 8	165 ± 5	155 ± 4
	60	181 ± 9	194 ± 8	195 ± 7	171 ± 7	171 ± 8	174 ± 8
	100	189 ± 6	192 ± 12	194 ± 5	184 ± 7	175 ± 5	181 ± 6
	150	177 ± 10	194 ± 7	199 ± 4	179 ± 5	175 ± 6	190 ± 8
hippocampus	30	130 ± 4	126 ± 5	135 ± 3	139 ± 4	132 ± 6	132 ± 4
	60	147 ± 5	161 ± 5	160 ± 4	132 ± 6	141 ± 4	144 ± 4
	100	171 ± 6	163 ± 6	160 ± 6	150 ± 3	149 ± 6	152 ± 4
	150	156 ± 5	167 ± 2	165 ± 6	153 ± 5	147 ± 5	153 ± 3
striatum	30	92 ± 6	89 ± 5	92 ± 7	79 ± 4	88 ± 5	82 ± 3
	60	109 ± 7	104 ± 3	109 ± 6	95 ± 6	94 ± 4	93 ± 7
	100	110 ± 9	104 ± 7	114 ± 8	96 ± 4	101 ± 4	106 ± 4
	150	112 ± 5	113 ± 6	116 ± 7	94 ± 3	102 ± 4	110 ± 7
midbrain	30	281 ± 9	282 ± 7	290 ± 8	276 ± 5	272 ± 3	279 ± 6
	60	336 ± 12	326 ± 10	337 ± 9	316 ± 11	301 ± 8	322 ± 7
	100	361 ± 5	341 ± 16	390 ± 9	331 ± 11	3331 ± 7	342 ± 5
	150	363 ± 9	365 ± 4	375 ± 6	355 ± 9	339 ± 6	346 ± 9
brainstem	30	157 ± 7	165 ± 4	168 ± 5	154 ± 6	155 ± 4	153 ± 5
	60	220 ± 6	220 ± 7	214 ± 7	192 ± 7	211 ± 9	196 ± 6
	100	250 ± 7	243 ± 12	245 ± 7	233 ± 5	219 ± 7	213 ± 11
	150	275 ± 9	270 ± 3	260 ± 7	242 ± 4	250 ± 8	255 ± 6

Data represent mean ± SE obtained from 5-9 animals in each treatment group for each age and sex. For body weight, three-factor ANOVA (treatment, age, sex) indicates no significant treatment effects or interactions of treatment with the other factors. Across a larger cohort (all animals, not just those used for neurochemical determinations), there were slightly higher body weights (2-3%) in the diazinon groups compared to control ($p < 0.02$) in the preweaning period but not after weaning (data not shown).

For brain region weight, four-factor ANOVA (treatment, age, sex, region) indicates a significant main treatment effect ($p < 0.002$) but no interactions of treatment with the other factors. The diazinon 1 mg/kg group was significantly different ($p < 0.01$) from either the control or low dose diazinon groups, representing an overall increase of approximately 2%.

Note that weights for frontal/parietal cortex and temporal/occipital cortex are for the right hemisphere only, the portion used in this study.

TABLE S2: HC3 Binding (mean ± SE)

Region	Postnatal Age (days)	Male (fmol/mg protein)			Female (fmol/mg protein)		
		Control	Diazinon 0.5 mg/kg	Diazinon 1 mg/kg	Control	Diazinon 0.5 mg/kg	Diazinon 1 mg/kg
frontal/parietal cortex	30	17.8 ± 0.8	16.7 ± 0.7	16.7 ± 1.2	20.3 ± 0.6	17.7 ± 1.5	16.7 ± 1.0
	60	20.4 ± 1.1	20.5 ± 2.2	18.1 ± 1.2	22.0 ± 1.3	19.5 ± 1.7	20.0 ± 1.3
	100	20.3 ± 1.1	20.9 ± 1.1	18.3 ± 1.1	23.2 ± 1.4	19.5 ± 0.7	20.5 ± 1.2
	150	19.6 ± 1.2	18.1 ± 1.3	18.8 ± 0.7	20.0 ± 1.1	19.0 ± 0.8	19.6 ± 0.6
temporal/occipital cortex	30	11.5 ± 0.6	10.4 ± 0.6	9.9 ± 0.3	12.6 ± 1.0	11.7 ± 0.9	10.9 ± 0.6
	60	12.0 ± 0.4	11.0 ± 0.4	8.8 ± 0.5	12.4 ± 0.7	10.6 ± 0.8	11.5 ± 0.9
	100	12.4 ± 0.8	13.2 ± 0.7	11.7 ± 0.8	13.9 ± 0.7	12.1 ± 0.7	12.0 ± 0.4
	150	13.2 ± 0.6	12.2 ± 0.4	11.9 ± 0.5	13.7 ± 0.7	12.6 ± 0.4	12.6 ± 0.5
hippocampus	30	16.6 ± 0.6	14.9 ± 1.0	14.9± 1.2	16.1 ± 0.5	14.6 ± 1.1	14.8 ± 1.0
	60	15.9 ± 0.6	15.1 ± 1.4	11.9 ± 0.6	15.6 ± 1.3	14.1 ± 1.2	13.7 ± 1.1
	100	17.2 ± 0.8	18.6 ± 0.9	17.7 ± 1.1	19.9 ± 1.2	19.3 ± 0.7	17.3 ± 1.0
	150	15.4 ± 0.8	14.0 ± 0.5	13.1 ± 0.4	15.2 ± 0.5	14.0 ± 0.7	14.1 ± 0.6
striatum	30	88 ± 5	91 ± 6	94 ± 6	86 ± 9	85 ± 6	94 ± 6
	60	84 ± 2	88 ± 7	76 ±3	94 ± 6	80 ± 3	84 ± 6
	100	81 ± 5	90 ± 4	80 ± 4	82 ± 4	83 ± 4	84 ± 3
	150	81 ± 3	79 ± 2	79 ± 3	84 ± 2	82 ± 3	74 ± 3
midbrain	30	14.9 ± 0.9	16.0 ± 0.9	12.6 ± 0.6	15.5 ± 0.7	14.0 ± 1.0	14.4 ± 0.7
	60	14.8 ± 0.7	14.8 ± 0.4	13.0 ± 0.6	14.6 ± 1.0	13.5 ± 0.8	14.0 ± 0.6
	100	12.5 ± 0.5	11.6 ± 0.5	12.1 ± 0.5	12.9 ± 0.8	11.3 ± 0.6	12.1 ± 0.5
	150	13.7 ± 1.0	13.2 ± 0.9	13.7 ± 0.8	15.1 ± 0.8	13.6 ± 0.8	13.5 ± 0.5
brainstem	30	10.3 ± 0.7	9.5 ± 0.2	8.7 ± 0.5	10.2 ± 0.4	8.9 ± 0.5	8.7 ± 0.4
	60	9.5 ± 0.4	7.8 ± 0.3	9.3 ± 0.4	8.8 ± 0.5	9.7 ± 0.3	9.8 ± 0.3
	100	8.5 ± 0.2	8.3 ± 0.4	7.9 ± 0.3	8.3 ± 0.3	7.8 ± 0.5	7.6 ± 0.4
	150	7.2 ± 0.2	7.5 ± 0.6	7.3 ± 0.5	7.0 ± 0.3	7.2 ± 0.4	6.8 ± 0.4

Data represent mean ± SE obtained from 5-9 animals in each treatment group for each age and sex. Results of multivariate ANOVA are provided in the main text. Note that the assays for each region and age were run in separate experiments, so absolute values cannot be compared strictly across ages or between regions. Accordingly, statistical comparisons in the main text were conducted on log-transformed data, which evaluates the treatment differences as a proportion to control values, rather than as an arithmetic difference. Representing the data as proportional differences (percent control) enables a full comparison of treatment effects and treatment interactions with all the other variables, even though absolute values for the controls cannot be compared across regions and ages.

TABLE S3: ChAT Activity (mean ± SE)

Region	Postnatal Age (days)	Male (nmol/min per mg protein)			Female (nmol/min per mg protein)		
		Control	Diazinon 0.5 mg/kg	Diazinon 1 mg/kg	Control	Diazinon 0.5 mg/kg	Diazinon 1 mg/kg
frontal/parietal cortex	30	0.86 ± 0.04	0.89 ± 0.02	0.85 ± 0.04	0.94 ± 0.05	0.92 ± 0.03	0.93 ± 0.05
	60	0.94 ± 0.05	0.92 ± 0.06	0.97 ± 0.04	1.03 ± 0.04	1.02 ± 0.06	0.93 ± 0.03
	100	0.93 ± 0.06	0.94 ± 0.01	0.95 ± 0.05	1.02 ± 0.03	0.96 ± 0.04	1.00 ± 0.03
	150	0.87 ± 0.03	0.82 ± 0.03	0.85 ± 0.03	0.96 ± 0.04	0.86 ± 0.02	0.88 ± 0.03
temporal/occipital cortex	30	0.56 ± 0.02	0.56 ± 0.02	0.57 ± 0.01	0.61 ± 0.04	0.55 ± 0.01	0.58 ± 0.01
	60	0.75 ± 0.04	0.75 ± 0.03	0.70 ± 0.02	0.76 ± 0.04	0.72 ± 0.03	0.70 ± 0.03
	100	0.64 ± 0.02	0.65 ± 0.01	0.69 ± 0.03	0.68 ± 0.03	0.68 ± 0.03	0.67 ± 0.03
	150	0.71 ± 0.03	0.75 ± 0.03	0.72 ± 0.02	0.76 ± 0.03	0.75 ± 0.02	0.72 ± 0.02
hippocampus	30	0.77 ± 0.03	0.75 ± 0.02	0.74 ± 0.03	0.80 ± 0.03	0.72 ± 0.02	0.83 ± 0.02
	60	0.82 ± 0.05	0.83 ± 0.05	0.81 ± 0.02	0.87 ± 0.03	0.84 ± 0.03	0.79 ± 0.04
	100	0.80 ± 0.03	0.85 ± 0.03	0.83 ± 0.03	0.85 ± 0.03	0.84 ± 0.02	0.85 ± 0.02
	150	0.79 ± 0.04	0.78 ± 0.03	0.80 ± 0.02	0.86 ± 0.02	0.83 ± 0.03	0.80 ± 0.04
striatum	30	1.78 ± 0.10	2.08 ± 0.05	2.03 ± 0.11	2.08 ± 0.09	2.07 ± 0.07	2.27 ± 0.09
	60	2.30 ± 0.13	2.39 ± 0.12	2.32 ± 0.12	2.29 ± 0.09	2.35 ± 0.11	2.50 ± 0.08
	100	2.22 ± 0.11	2.32 ± 0.05	2.29 ± 0.08	2.26 ± 0.08	2.42 ± 0.10	2.22 ± 0.08
	150	2.19 ± 0.13	2.15 ± 0.09	2.25 ± 0.12	2.12 ± 0.09	2.19 ± 0.13	2.29 ± 0.05
midbrain	30	0.65 ± 0.02	0.66 ± 0.01	0.69 ± 0.03	0.72 ± 0.03	0.71 ± 0.02	0.72 ± 0.02
	60	0.71 ± 0.03	0.69 ± 0.03	0.70 ± 0.02	0.70 ± 0.02	0.71 ± 0.01	0.77 ± 0.02
	100	0.71 ± 0.02	0.71 ± 0.02	0.75 ± 0.02	0.75 ± 0.03	0.75 ± 0.03	0.77 ± 0.03
	150	0.70 ± 0.02	0.72 ± 0.01	0.73 ± 0.02	0.80 ± 0.03.	0.72 ± 0.02	0.76 ± 0.02
brainstem	30	1.53 ± 0.07	1.57 ± 0.05	1.56 ± 0.11	1.54 ± 0.04	1.61 ± 0.06	1.63 ± 0.06
	60	1.40 ± 0.03	1.37 ± 0.04	1.37 ± 0.02	1.43 ± 0.05	1.39 ± 0.03	1.39 ± 0.02
	100	1.24 ± 0.04	1.26 ± 0.04	1.30 ± 0.02	1.29 ± 0.04	1.31 ± 0.04	1.30 ± 0.03
	150	1.09 ± 0.01	1.15 ± 0.03	1.15 ± 0.03	1.20 ± 0.04	1.17 ± 0.03	1.19 ± 0.02

Data represent mean ± SE obtained from 5-9 animals in each treatment group for each age and sex. Results of multivariate ANOVA are provided in the main text. Note that the assays for each region and age were run in separate experiments, so absolute values cannot be compared strictly across ages or between regions. Accordingly, statistical comparisons in the main text were conducted on log-transformed data, which evaluates the treatment differences as a proportion to control values, rather than as an arithmetic difference. Representing the data as proportional differences (percent control) enables a full comparison of treatment effects and treatment interactions with all the other variables, even though absolute values for the controls cannot be compared across regions and ages.

TABLE S4: HC3/ChAT ratio (mean ± SE)

Region	Postnatal Age (days)	Male			Female		
		Control	Diazinon 0.5 mg/kg	Diazinon 1 mg/kg	Control	Diazinon 0.5 mg/kg	Diazinon 1 mg/kg
frontal/parietal cortex	30	21.0 ± 1.2	18.9 ± 0.8	19.5 ± 0.8	22.0 ± 1.2	19.3 ± 1.5	18.0 ± 1.0
	60	21.9 ± 1.1	22.0 ± 1.2	18.9 ± 1.4	21.4 ± 1.6	19.4 ± 1.1	21.4 ± 0.9
	100	20.0 ± 1.0	22.3 ± 1.4	19.3 ± 0.7	22.9 ± 1.5	20.5 ± 1.1	20.4 ± 1.1
	150	22.4 ± 1.1	22.0 ± 1.4	22.1 ± 0.9	21.6 ± 1.4	22.1 ± 0.8	22.3 ± 0.8
temporal/occipital cortex	30	20.5 ± 0.9	18.8 ± 1.8	17.4 ± 0.7	20.8 ± 0.5	21.4 ± 1.6	18.8 ± 0.9
	60	16.2 ± 1.7	14.6 ± 0.8	12.8 ± 0.8	16.2 ± 1.2	15.1 ± 1.3	16.3 ± 1.1
	100	19.4 ± 1.3	20.5 ± 1.2	16.7 ± 0.5	20.5 ± 1.1	17.9 ± 0.9	18.1 ± 0.9
	150	18.8 ± 0.9	16.4 ± 0.9	16.5 ± 0.6	18.0 ± 0.7	16.9 ± 0.7	17.7 ± 1.0
hippocampus	30	21.7 ± 1.5	19.8 ± 1.6	20.0 ± 1.3	20.4 ± 1.4	20.3± 2.2	17.9 ± 1.2
	60	19.7 ± 1.1	18.2 ± 0.9	14.3 ± 0.6	18.0 ± 1.3	16.6 ± 0.9	17.1 ± 0.8
	100	21.3 ± 1.5	21.9 ± 1.3	21.2 ± 1.1	23.4 ± 1.5	23.7 ± 1.3	20.4 ± 1.1
	150	20.2 ± 1.1	18.3 ± 1.1	16.6 ± 0.7	17.9 ± 0.9	17.0 ± 1.0	18.0 ± 1.3
striatum	30	50 ± 3	44 ± 4	47 ± 3	42 ± 6	41 ± 4	42 ± 4
	60	37 ± 2	37 ± 3	34 ± 2	41 ± 2	34 ± 1	34 ± 2
	100	37 ± 3	39 ± 2	36 ± 3	37 ± 2	35 ± 2	38 ± 2
	150	38 ± 3	37 ± 2	36 ± 2	40 ± 2	39 ± 2	33 ± 2
midbrain	30	23.1 ± 2.0	24.2 ± 1.4	18.5 ± 1.1	22.0 ± 1.3	19.6 ± 1.1	20.2 ± 1.2
	60	21.1 ± 1.5	21.2 ± 1.1	18.8 ± 0.9	20.9 ± 1.7	19.1 ± 1.4	18.3 ± 1.0
	100	17.7 ± 0.9	16.3 ± 0.7	16.2 ± 0.7	17.4 ± 1.3	15.3 ± 1.1	15.6 ± 0.9
	150	19.6 ± 1.3	18.3 ± 1.0	18.8 ± 1.0	19.1 ± 1.5	18.8 ± 0.9	17.6 ± 0.8
brainstem	30	6.9 ± 0.6	6.1 ± 0.3	5.7 ± 0.6	6.6 ± 0.2	5.7 ± 0.5	5.4 ± 0.3
	60	6.9 ± 0.3	5.7 ± 0.2	6.8 ± 0.3	6.2 ± 0.3	6.9 ± 0.2	7.0 ± 0.2
	100	7.0 ± 0.4	6.6 ± 0.5	6.1 ± 0.2	6.5 ± 0.5	6.1 ± 0.6	5.9 ± 0.4
	150	6.6 ± 0.1	6.5 ± 0.6	6.4 ± 0.5	5.9 ± 0.3	6.2 ± 0.5	5.8 ± 0.4

Data represent mean ± SE obtained from 5-9 animals in each treatment group for each age and sex. Results of multivariate ANOVA are provided in the main text. Note that the assays for each region and age were run in separate experiments, so absolute values cannot be compared strictly across ages or between regions. Accordingly, statistical comparisons in the main text were conducted on log-transformed data, which evaluates the treatment differences as a proportion to control values, rather than as an arithmetic difference. Representing the data as proportional differences (percent control) enables a full comparison of treatment effects and treatment interactions with all the other variables, even though absolute values for the controls cannot be compared across regions and ages.

TABLE S5: nAChR Binding (mean ± SE)

Region	Postnatal Age (days)	Male (fmol/mg protein)			Female (fmol/mg protein)		
		Control	Diazinon 0.5 mg/kg	Diazinon 1 mg/kg	Control	Diazinon 0.5 mg/kg	Diazinon 1 mg/kg
frontal/parietal cortex	30	67 ± 2	69 ± 2	62 ± 3	73 ± 2	63 ± 5	61 ± 3
	60	64 ± 3	66 ± 6	55 ± 4	62 ± 4	54 ± 3	51 ± 2
	100	53 ± 2	53 ± 3	53 ± 3	52 ± 1	49 ± 1	46 ± 2
	150	48 ± 2	46 ± 2	47 ± 3	46 ± 2	44 ± 3	45 ± 2
temporal/occipital cortex	30	72 ± 2	80 ± 5	64 ± 5	79 ± 4	73 ± 5	75 ± 4
	60	73 ± 4	66 ± 4	64 ± 4	75 ± 5	65 ± 4	61 ± 3
	100	55 ± 2	57 ± 2	52 ± 2	53 ± 2	52 ± 2	53 ± 3
	150	57 ± 3	52 ± 3	50 ± 2	54 ± 3	49 ± 2	51 ± 3
hippocampus	30	47 ± 2	48 ± 4	47 ± 3	52 ± 3	47 ± 2	48 ± 4
	60	41 ± 2	43 ± 2	36 ± 2	39 ± 3	35 ± 2	34 ± 2
	100	33 ± 1	33 ± 2	31 ± 1	30 ± 1	28 ± 1	30 ± 1
	150	31 ± 2	31 ± 2	27 ± 2	29 ± 1	27 ± 2	27 ± 2
midbrain	30	83 ± 4	97 ± 4	69 ± 2	86 ± 2	79 ± 3	83 ± 4
	60	79 ± 2	88 ± 5	72 ± 3	77 ± 3	76 ± 4	72 ± 2
	100	60 ± 2	59 ± 2	54 ± 3	57 ± 2	55 ± 1	56 ± 3
	150	66 ± 3	67 ± 5	61 ± 4	67 ± 4	64 ± 4	61 ± 4
brainstem	30	40 ± 2	43 ± 2	37 ± 2	40 ± 2	36 ± 2	36 ± 1
	60	35 ± 1	32 ± 2	37 ± 1	35 ± 1	34 ± 2	33 ± 1
	100	31 ± 1	31 ± 1	30 ± 1	30 ± 1	29 ± 1	28 ± 2
	150	26 ± 1	28 ± 2	25 ± 2	26 ± 1	25 ± 1	24 ± 1

Data represent mean ± SE obtained from 5-9 animals in each treatment group for each age and sex. Results of multivariate ANOVA are provided in the main text. Note that the assays for each region and age were run in separate experiments, so absolute values cannot be compared strictly across ages or between regions. Accordingly, statistical comparisons in the main text were conducted on log-transformed data, which evaluates the treatment differences as a proportion to control values, rather than as an arithmetic difference. Representing the data as proportional differences (percent control) enables a full comparison of treatment effects and treatment interactions with all the other variables, even though absolute values for the controls cannot be compared across regions and ages.

TABLE S6: 5HT Receptor Binding (mean ± SE)

Subtype and Region	Postnatal Age (days)	Male (fmol/mg protein)			Female (fmol/mg protein)		
$5HT_{1A}$ Receptors		Control	Diazinon 0.5 mg/kg	Diazinon 1 mg/kg	Control	Diazinon 0.5 mg/kg	Diazinon 1 mg/kg
frontal/parietal cortex	30	119 ± 9	107 ± 12	104 ± 14	139 ± 7	110 ± 15	93 ± 9
	60	93 ± 10	100 ± 21	56 ± 7	109 ± 13	67 ± 10	75 ± 7
	100	63 ± 4	59 ± 3	60 ± 6	66 ± 6	61 ± 4	57 ± 5
	150	65 ± 5	49 ± 6	47 ± 3	66 ± 5	59 ± 6	56 ± 5
temporal/occipital cortex	30	125 ± 6	136 ± 19	102 ± 13	141 ± 16	127 ± 11	127 ± 9
	60	99 ± 12	71 ± 10	74 ± 11	104 ± 11	85 ± 11	86 ± 10
	100	59 ± 5	68 ± 6	56 ± 5	65 ± 4	60 ± 5	59 ± 4
	150	82 ± 6	58 ± 6	61 ± 7	81 ± 10	57 ± 4	73 ± 11
midbrain	30	64 ± 8	77 ± 7	48 ± 9	78 ± 4	66 ± 10	67 ± 6
	60	47 ± 3	49 ± 6	36 ± 3	41 ± 5	41 ± 6	47 ± 6
	100	28 ± 1	25 ± 1	25 ± 1	26 ± 2	26 ± 2	24 ± 2
	150	22 ± 1	23 ± 2	24 ± 2	28 ± 1	22 ± 1	20 ± 1
brainstem	30	41 ± 3	37 ± 4	37 ± 5	43 ± 2	33 ± 3	38 ± 3
	60	30 ± 3	22 ± 1	33 ± 4	28 ± 2	29 ± 3	27 ± 2
	100	25 ± 2	27 ± 2	20 ± 2	25 ± 2	23 ± 2	26 ± 2
	150	17 ± 1	17 ± 2	17 ± 1	17 ± 1	16 ± 1	19 ± 1
$5HT_2$ Receptors							
frontal/parietal cortex	30	187 ± 6	175 ± 9	184 ± 5	179 ± 6	183 ± 4	189 ± 5
	60	181 ± 6	183 ± 4	171 ± 4	175 ± 6	179 ± 5	171 ± 5
	100	167 ± 8	160 ± 6	165 ± 7	161 ± 6	164 ± 4	152 ± 5
	150	155 ± 4	161 ± 5	165 ± 5	167 ± 4	159 ± 6	157 ± 4
temporal/occipital cortex	30	96 ± 4	93 ± 3	97 ± 4	98 ± 5	103 ± 5	103 ± 4
	60	85 ± 3	89 ± 5	88 ± 3	86 ± 2	91 ± 4	90 ± 4
	100	94 ± 3	88 ± 2	88 ± 2	98 ± 3	92 ± 4	89 ± 2
	150	70 ± 2	76 ± 2	78 ± 3	79 ± 3	82 ± 3	78 ± 2
midbrain	30	25 ± 1	26 ± 2	26 ± 1	24 ± 1	27 ± 1	29 ± 2
	60	17 ± 1	23 ± 2	19 ± 1	21 ± 1	21 ± 1	21 ± 2
	100	21 ± 1	19 ± 2	24 ± 2	21 ± 1	19 ± 1	21 ± 1
	150	20 ± 2	21 ± 1	22 ± 1	22 ± 1	23 ± 1	22 ± 1
brainstem	30	24 ± 1	25 ± 1	24 ± 1	23 ± 1	24 ± 1	25 ± 1
	60	18 ± 1	17 ± 1	20 ± 1	21 ± 1	19 ± 1	23 ± 1
	100	19 ± 1	18 ± 1	19 ± 1	19 ± 1	17 ± 1	19 ± 1
	150	15 ± 1	19 ± 2	17 ± 1	17 ± 1	18 ± 1	17 ± 2

Data represent mean ± SE obtained from 5-9 animals in each treatment group for each age and sex. Results of multivariate ANOVA are provided in the main text. Note that the assays for each region and age were run in separate experiments, so absolute values cannot be compared strictly across ages or between regions. Accordingly, statistical comparisons in the main text were conducted on log-transformed data, which evaluates the treatment differences as a proportion to control values, rather than as an arithmetic difference. Representing the data as proportional differences (percent control) enables a full comparison of treatment effects and treatment interactions with all the other variables, even though absolute values for the controls cannot be compared across regions and ages.