

Supplemental Table 1. Relative expression levels of miRNAs in the vHIPP for signal intensities &gt;500.

miRNA ID	3 months	SD	18 months	SD
rno-miR-125b-5p	34,341.65	190.56	34,760.82	1,482.79
rno-miR-9	32,909.61	2,081.18	32,381.17	2,506.81
rno-miR-128	27,876.06	1,107.70	28,176.53	1,685.54
rno-miR-26a	24,813.59	1,360.06	26,766.85	2,572.05
rno-miR-29a	24,057.18	1,577.98	26,291.62	1,226.79
rno-let-7a	23,944.21	903.86	24,604.06	898.81
rno-let-7c	21,202.86	1,226.29	22,438.28	2,015.58
rno-miR-466b-1-3p	21,058.12	613.42	22,049.90	2,000.16
rno-miR-466c-3p	20,694.46	640.07	21,711.93	1,997.58
rno-let-7f	20,650.72	770.76	20,742.31	496.03
rno-let-7d	19,681.17	852.48	19,800.67	425.63
rno-miR-124	19,229.34	1,834.44	20,647.81	1,863.24
rno-miR-125a-5p	18,871.26	551.91	18,720.27	1,060.23
rno-let-7b	18,103.40	697.79	18,807.75	1,271.20
rno-miR-9-3p	16,643.50	507.91	16,344.03	1,026.59
rno-miR-181a	16,614.26	2,103.60	17,709.98	2,168.72
rno-miR-23b	14,564.76	918.67	15,226.70	1,208.60
rno-miR-466b-2-3p	14,243.83	545.93	14,634.29	855.41
rno-miR-30c	13,619.99	616.15	13,515.59	931.21
rno-miR-568	13,117.42	2,721.13	14,187.79	1,260.18
rno-miR-127	13,061.83	1,301.06	13,601.27	1,691.24
rno-miR-222	12,590.79	1,195.81	12,851.51	1,538.90
rno-let-7i	12,423.18	456.28	12,754.82	671.90
rno-miR-23a	12,276.15	750.73	12,905.68	1,058.59
rno-miR-221	12,256.51	1,066.28	12,648.82	1,095.16
rno-miR-434	12,123.25	656.28	11,298.41	840.31
rno-miR-218a	12,068.14	871.84	11,456.06	1,878.60
rno-let-7e	11,606.67	1,883.29	10,816.30	1,793.40
rno-miR-30b-5p	9,586.42	2,327.54	7,666.24	2,674.44
rno-miR-191	9,425.16	1,301.10	9,811.96	1,356.69
rno-miR-103	9,396.41	1,326.92	9,719.01	1,353.51
rno-miR-107	8,884.93	1,123.74	9,249.37	1,041.69
rno-miR-29c	8,582.84	3,318.30	8,239.14	3,971.76
rno-miR-129-2-3p	8,535.26	578.42	6,849.01	1,410.90
rno-miR-24	7,822.16	1,300.19	9,088.86	1,445.06
rno-miR-145	7,734.93	1,165.00	7,897.21	2,686.78
rno-miR-483-3p	7,277.34	695.32	6,729.23	745.85
rno-miR-126	6,249.22	580.27	6,782.56	682.13
rno-miR-7a	6,219.45	294.77	4,543.15	988.46
rno-miR-132	5,906.47	743.72	6,075.71	767.77
rno-miR-99a	5,695.38	354.08	5,086.51	600.89
rno-miR-99b	5,210.52	667.14	5,230.16	997.79
rno-miR-138	5,184.95	1,088.97	5,704.49	1,478.11
rno-miR-100	4,954.46	349.08	4,253.17	867.25
rno-miR-16	4,875.97	531.25	5,533.96	382.90
rno-miR-139-5p	4,718.80	320.37	4,679.63	365.13
rno-miR-210-3p	4,593.95	1,891.41	4,813.84	1,965.21
rno-miR-150	4,512.16	340.74	3,601.62	500.51
rno-miR-30a	4,328.87	211.18	4,574.04	525.81
rno-miR-3574	4,315.79	1,034.57	4,481.63	1,104.75
rno-miR-27b	4,019.85	441.45	4,526.84	268.33
rno-miR-30d	4,010.12	375.88	3,942.34	296.88
rno-miR-196c-3p	3,955.92	1,435.39	3,352.75	468.68
rno-miR-352	3,935.83	927.01	3,359.49	883.43
rno-miR-328a-3p	3,872.33	5,457.75	1,594.60	1,402.69
rno-miR-26b	3,598.88	2,264.85	3,159.58	1,565.08
rno-miR-22	3,539.82	489.40	3,808.50	442.06
rno-miR-758-3p	3,423.71	1,723.88	3,011.83	1,448.96
rno-miR-487b	3,348.78	449.08	3,108.01	580.35
rno-miR-29b	3,296.24	755.74	3,871.07	1,700.23
rno-miR-181b	3,189.23	255.39	3,561.98	209.21
rno-miR-185	3,113.13	628.61	3,383.23	665.07
rno-miR-181c	3,045.02	534.67	2,373.84	730.24
rno-miR-1224	3,009.32	761.02	2,829.29	719.29

miRNA ID	3 months	SD	18 months	SD
rno-miR-361	2,939.77	532.74	3,317.51	653.90
rno-miR-27a	2,919.72	249.94	3,177.91	444.47
rno-miR-143	2,851.84	564.18	3,188.61	1,181.93
rno-miR-672	2,841.16	429.92	1,761.04	829.65
rno-miR-137	2,769.36	381.15	2,610.83	751.86
rno-miR-98	2,720.99	2,273.85	1,883.84	1,503.19
rno-miR-129-1-3p	2,616.90	751.10	1,841.97	501.07
rno-miR-195	2,605.78	313.29	2,705.06	514.58
rno-miR-384-5p	2,600.05	242.51	2,513.06	354.05
rno-miR-328a	2,550.43	881.48	2,820.08	1,072.09
rno-miR-494	2,406.82	2,367.09	1,826.73	1,481.71
rno-miR-151	2,356.54	504.99	2,505.58	522.37
rno-miR-34c-3p	2,275.67	1,810.69	1,975.78	865.43
rno-miR-329	2,209.73	221.37	1,728.78	261.33
rno-miR-214	2,208.55	307.79	2,064.27	296.67
rno-miR-382	2,185.59	116.17	2,181.51	69.46
rno-miR-433	1,897.27	393.85	1,913.86	556.95
rno-miR-320	1,855.48	380.47	2,235.85	594.01
rno-miR-331	1,711.08	339.67	1,675.98	445.64
rno-miR-92b	1,670.25	388.01	2,081.03	846.70
rno-miR-539	1,566.49	373.48	1,461.20	334.67
rno-miR-379	1,559.86	212.78	1,627.67	192.57
rno-miR-495	1,492.57	73.66	1,325.06	110.56
rno-miR-219-2-3p	1,482.06	186.32	1,904.20	143.80
rno-miR-324-5p	1,470.32	403.38	1,702.36	540.24
rno-miR-181d	1,385.93	458.58	1,220.55	652.80
rno-miR-206	1,357.51	422.26	921.44	537.83
rno-miR-3584-5p	1,231.98	837.89	1,005.04	282.69
rno-miR-204	1,205.80	197.34	6,135.38	7,612.59
rno-miR-485-3p	1,191.32	479.81	993.47	81.41
rno-miR-30e	1,138.16	346.83	1,162.48	314.49
rno-miR-140-3p	1,105.16	278.69	1,431.61	531.83
rno-miR-376b-3p	1,104.01	172.43	968.70	141.34
rno-miR-138-1-3p	1,072.56	103.67	1,037.56	38.84
rno-miR-32-3p	1,063.60	740.75	835.54	666.51
rno-miR-344a-3p	1,041.23	362.87	1,133.65	438.88
rno-miR-342-3p	1,015.36	135.97	872.45	95.67
rno-miR-21	999.46	64.22	1,425.99	215.86
rno-miR-674-5p	994.68	240.14	1,188.93	377.96
rno-miR-346	946.58	263.77	1,012.38	344.42
rno-miR-330-3p	874.43	315.67	1,152.24	409.60
rno-let-7d-3p	839.47	152.25	902.23	155.76
rno-miR-598-3p	833.40	114.32	819.84	120.33
rno-miR-25	796.10	116.73	830.13	62.74
rno-miR-423-3p	777.42	108.70	886.79	234.11
rno-miR-31	755.55	225.32	985.52	326.48
rno-miR-378	755.23	189.39	840.13	229.35
rno-miR-146b	750.89	67.62	801.94	154.61
rno-miR-543-3p	748.70	82.25	705.85	136.15
rno-miR-130a	743.51	39.94	817.87	224.54
rno-miR-384-3p	731.31	497.14	645.31	530.35
rno-miR-455-3p	716.33	107.10	734.69	175.10
rno-miR-92a	708.45	47.19	668.54	52.27
rno-miR-324-3p	705.40	223.42	826.41	277.77
rno-miR-466b	687.56	483.23	516.83	425.41
rno-miR-323	660.84	52.61	571.23	65.74
rno-miR-154	605.40	100.60	608.43	51.69
rno-miR-187	592.17	111.40	562.99	79.24
rno-miR-667	588.43	107.63	529.69	55.29
rno-miR-485	581.14	213.32	663.35	265.94
rno-miR-101a	572.82	133.52	697.30	245.95
rno-miR-409-3p	541.12	48.16	548.50	116.37
rno-miR-129	537.24	43.22	543.53	67.16
rno-miR-425	536.51	174.10	554.12	203.88
rno-miR-504	530.26	108.94	511.37	133.86
rno-miR-383	520.55	132.77	572.47	165.21
rno-miR-708	512.52	123.60	610.63	134.12

Supplemental Table 2. Statistical analysis of miRNA expression levels in the dHIPP

miRNA	<u>Main Effect:</u> Treatment	<u>Main Effect:</u> Age	<u>Interaction:</u> Treatment x Age
Let-7i	No	Yes ( $F(1,16)=6.292$ , $p=0.023$ )	No
miR-7a	Yes ( $F(1,15)=106.178$ , $p<0.001$ )	Yes ( $F(1,15)=110.163$ , $p<0.001$ )	Yes ( $F(1,15)=109.984$ , $p<0.001$ )
miR-9	Yes ( $F(1,15)=5.609$ , $p=0.032$ )	Yes ( $F(1,15)=4.726$ , $p=0.046$ )	No
miR-9-3p	No	Yes ( $F(1,15)=5.011$ , $p=0.041$ )	No
miR-125a	No	No	No
miR-181a	No	Yes ( $F(1,16)=32.893$ , $p<0.001$ )	No
miR-495	No	No	No

Supplemental Table 3. Statistical analysis of miRNA expression levels in the PVN

miRNA	<u>Main Effect:</u> Treatment	<u>Main Effect:</u> Age	<u>Interaction:</u> Treatment x Age
Let-7i	Yes ( $F(1,14)=11.987$ , $p=0.004$ )	Yes ( $F(1,14)=22.550$ , $p<0.001$ )	No
miR-7a	Yes ( $F(1,14)=4.810$ , $p=0.046$ )	Yes ( $F(1,14)=6.065$ , $p=0.027$ )	Yes ( $F(1,14)=4.498$ , $p=0.052$ )
miR-9	Yes ( $F(1,12)=7.869$ , $p=0.016$ )	Yes ( $F(1,12)=4.921$ , $p=0.047$ )	No
miR-9-3p	No	No	No
miR-125a	Yes ( $F(1,15)=17.335$ , $p<0.001$ )	Yes ( $F(1,15)=7.823$ , $p=0.014$ )	No
miR-181a	No	No	No
miR-495	No	No	No

Supplemental Table 4. Statistical analysis of miRNA expression levels in the CeA

miRNA	<u>Main Effect:</u> Treatment	<u>Main Effect:</u> Age	<u>Interaction:</u> Treatment x Age
Let-7i	No	No	No
miR-7a	No	No	Yes ( $F(1,15)=6.507$ , $p=0.022$ )
miR-9	Yes ( $F(1,15)=9.803$ , $p=0.007$ )	Yes ( $F(1,15)=14.984$ , $p=0.002$ )	Yes ( $F(1,15)=14.984$ , $p=0.030$ )
miR-9-3p	No	Yes ( $F(1,15)=12.148$ , $p=0.003$ )	Yes ( $F(1,15)=10.738$ , $p=0.005$ )
miR-125a	No	No	No
miR-181a	No	No	No
miR-495	No	Yes ( $F(1,15)=53.989$ , $p<0.001$ )	No