

Suppl. Table 1: Statistical information (F statistics and p values) of data shown in Figs. 1, 3, 4, 5, 6, 7, 8.

Figure	Experiment	F-statistic	p-value
1A	Two-way ANOVA Plasma PRL levels in cyclic and E2- rats (AD, PF, AF) AD - cyclic vs E2 PF - cyclic vs E2 AF - cyclic vs E2 AD vs PF - cyclic AD vs PF - E2 AD vs AF - cyclic AD vs AF - E2 PF vs AF - cyclic PF vs AF - E2	Alcohol: F (2, 15) = 20.92 Estrogen: F (1, 15) = 163 Interaction: F (2, 15) = 19.72	p< 0.0001 p< 0.0001 p< 0.0001 p<0.001 p<0.001 p<0.001 p>0.05 p>0.05 p>0.05 p<0.001 p>0.05 p<0.01
1B	Two-way ANOVA Pituitary PRL mRNA levels in cyclic and E2- rats (AD, PF, AF) AD - cyclic vs E2 PF - cyclic vs E2 AF - cyclic vs E2 AD vs PF - cyclic AD vs PF - E2 AD vs AF - cyclic AD vs AF - E2 PF vs AF - cyclic PF vs AF - E2	Alcohol: F (2, 38) = 17.6 Estrogen: F (1, 38) = 108.9 Interaction: F (2, 38)= 0.0453	p< 0.0001 p< 0.0001 p=0.9557 p<0.001 p<0.001 p<0.001 p>0.05 p>0.05 p<0.01 p<0.01 p<0.01 p<0.01
1C	Two-way ANOVA Pituitary D2R mRNA levels in cyclic and E2- rats (AD, PF, AF) AD - cyclic vs E2 PF - cyclic vs E2 AF - cyclic vs E2 AD vs PF - cyclic AD vs PF - E2 AD vs AF - cyclic AD vs AF - E2 PF vs AF - cyclic PF vs AF - E2	Alcohol: F (2, 21) = 36.82 Estrogen: F (1, 21) = 34.22 Interaction: F (2, 21) = 3.921	p< 0.0001 p< 0.0001 p=0.0357 p<0.001 p<0.05 p>0.05 p>0.05 p>0.05 p<0.001 p<0.05 p<0.001 p<0.01
1D	Two-way ANOVA Pituitary D2S mRNA levels in cyclic and E2- rats (AD, PF, AF) AD - cyclic vs E2 PF - cyclic vs E2	Alcohol: F (2, 21) = 54.72 Estrogen: F (1, 21) = 0.7944 Interaction: F (2, 21) = 8.511	p<0.0001 p=0.3829 p=0.0020 p<0.01 p<0.05

	<p>AF - cyclic vs E2 AD vs PF - cyclic AD vs PF - E2 AD vs AF - cyclic AD vs AF - E2 PF vs AF - cyclic PF vs AF - E2</p>		<p>p>0.05 p>0.05 p>0.05 p<0.001 p<0.001 p<0.001 p<0.001</p>
3A	<p>Two-way ANOVA Mir-9 levels in pituitary of cyclic and E2- rats (AD, PF, AF)</p> <p>AD - cyclic vs E2 PF - cyclic vs E2 AF - cyclic vs E2 AD vs PF - cyclic AD vs PF - E2 AD vs AF - cyclic AD vs AF - E2 PF vs AF - cyclic PF vs AF - E2</p>	<p>Alcohol: F (2, 18) = 40.05 Estrogen: F (1, 18) = 0.00795 Interaction: F (2, 18) = 0.690</p>	<p>p<0.0001 p=0.9306 p=0.5142 p>0.05 p>0.05 p>0.05 p>0.05 p>0.05 p<0.001 p<0.001 p<0.01 p<0.001</p>
3D	<p>Two-way ANOVA Mir-326 levels in pituitary of cyclic and E2- rats (AD, PF, AF)</p> <p>AD - cyclic vs E2 PF - cyclic vs E2 AF - cyclic vs E2 AD vs PF - cyclic AD vs PF - E2 AD vs AF - cyclic AD vs AF - E2 PF vs AF - cyclic PF vs AF - E2</p>	<p>Alcohol: F (2, 18) = 32.07 Estrogen: F (1, 18) = 0.3354 Interaction: F (2, 18) = 0.2369</p>	<p>p< 0.0001 p=0.3354 p=0.7915 p>0.05 p>0.05 p>0.05 p>0.05 p>0.05 p<0.001 p<0.001 p<0.001 p<0.001</p>
4A	<p>Two-way ANOVA Mir-9 levels in MMQ cells treated with ethanol for 24h and 48h</p> <p>Control - 24h vs 48h Ethanol (50mM) - 24h vs 48h Ethanol (100mM) - 24h vs 48h Control vs 50mM ethanol – 24h Control vs 50mM ethanol – 48h Control vs 100mM ethanol -24h Control vs 100mM ethanol – 48h 50mM vs 100mM ethanol – 24h 50mM vs 100mM ethanol – 48h</p>	<p>Ethanol: F (2, 15) = 14.64 Time: F (1, 15) = 17.09 Interaction: F (2, 15) = 0.2733</p>	<p>p=0.0003 p=0.0009 p=0.7645 p>0.05 p>0.05 p<0.05 p<0.001 p<0.001 p<0.05 p<0.01 p>0.05 p>0.05</p>
4C	<p>Two-way ANOVA D2R mRNA levels in MMQ cells treated with</p>	<p>Ethanol: F (2, 12) = 70.45</p>	<p>p< 0.0001</p>

	ethanol for 24h and 48h Control - 24h vs 48h Ethanol (50mM) - 24h vs 48h Ethanol (100mM) - 24h vs 48h Control vs 50mM ethanol – 24h Control vs 50mM ethanol – 48h Control vs 100mM ethanol -24h Control vs 100mM ethanol – 48h 50mM vs 100mM ethanol – 24h 50mM vs 100mM ethanol – 48h	Time: F (1, 12) = 1.499 Interaction: F (2, 12) = 1.314	p= 0.2444 p= 0.3047 p>0.05 p>0.05 p>0.05 p<0.001 p<0.05 p<0.001 p<0.001 p>0.05 p>0.05
4D	One-way ANOVA D2R protein levels in MMQ cells treated with ethanol Control vs ethanol (50mM) Control vs ethanol (100mM) Ethanol 50mM vs 100mM	Ethanol: F (2, 15) = 53.27	p<0.0001 p<0.001 p<0.001 p>0.05
4E	Two-way ANOVA D2S mRNA levels in MMQ cells treated with ethanol for 24h and 48h Control - 24h vs 48h Ethanol (50mM) - 24h vs 48h Ethanol (100mM) - 24h vs 48h Control vs 50mM ethanol – 24h Control vs 50mM ethanol – 48h Control vs 100mM ethanol -24h Control vs 100mM ethanol – 48h 50mM vs 100mM ethanol – 24h 50mM vs 100mM ethanol – 48h	Ethanol: F (2, 15) = 44.07 Time: F (1, 15) = 29.93 Interaction: F (2, 15) = 0.3001	p<0.0001 p<0.0001 p= 0.7451 p<0.05 p<0.05 p<0.01 p<0.001 p<0.001 p<0.001 p<0.001 p>0.05 p>0.05
4F	One-way ANOVA PRL mRNA levels in MMQ cells treated with ethanol Control vs ethanol (50mM) Control vs ethanol (100mM) Ethanol 50mM vs 100mM	Ethanol: F (2, 17) = 4.926	p=0.0205 p<0.05 p<0.05 p>0.05
5A	Unpaired t test Mir-9 levels in MMQ cells transfected with miR-9 mimic oligo	miR-9 mimic: t (20) = 5.262	p<0.0001
5B	Unpaired t test D2R mRNA levels in MMQ cells transfected with miR-9 mimic oligo	mir-9 mimic : t (14) = 10.13	p<0.0001
5C	Unpaired t test D2S mRNA levels in MMQ cells transfected with miR-9 mimic oligo	mir-9 mimic : t (14) = 7.951	p<0.0002
5D	Unpaired t test PRL mRNA levels in MMQ cells transfected with	mir-9 mimic : t (14) = 2.636	p=0.0196

	miR-9 mimic oligo		
6A	One-way ANOVA Effect of anti-mir-9 oligos on miR-9 levels in MMQ cells treated with ethanol Control vs ethanol Neg. control vs Neg. control + ethanol Neg. control vs Anti-miR-9 Neg. control + ethanol vs Anti-miR-9 + ethanol	Anti- miR-9: F (5, 26)= 59.13	p<0.0001 p<0.001 p<0.01 p<0.001 p<0.001
6B	One-way ANOVA Effect of anti-mir-9 oligos on D2R mRNA levels in MMQ cells treated with ethanol Neg. control vs Neg. control + ethanol Neg. control vs Anti-miR-9 Neg. control + ethanol vs Anti-miR-9 + ethanol	Anti-miR-9: F (3, 19) = 14.48	p<0.0001 p<0.05 p<0.01 p<0.001
6C	One-way ANOVA Effect of anti-mir-9 oligos on D2R protein levels in MMQ cells treated with ethanol Neg. control vs Neg. control + ethanol Neg. control vs Anti-miR-9 Neg. control + ethanol vs Anti-miR-9 + ethanol	Anit-miR-9: F (3, 12) = 3.913	p=0.0368 p<0.05 p>0.05 p<0.05
6D	One-way ANOVA Effect of anti-mir-9 oligos on D2S mRNA levels in MMQ cells treated with ethanol Neg. control vs Neg. control + ethanol Neg. control vs Anti-miR-9 Neg. control + ethanol vs Anti-miR-9 + ethanol	Anti-miR-9: F (3, 27) = 5.508	p=0.0044 p<0.05 p>0.05 p<0.05
6E	One-way ANOVA Effect of anti-mir-9 oligos on PRL mRNA levels in MMQ cells treated with ethanol Neg. control vs Neg. control + ethanol Neg. control vs Anti-miR-9 Neg. control + ethanol vs Anti-miR-9 + ethanol	Anti-miR-9: F (3, 19) = 10.67	p=0.0002 p<0.01 p<0.05 p<0.001
6F	One-way ANOVA Effect of anti-mir-9 oligos on PRL secretion levels in MMQ cells treated with ethanol Neg. control vs Neg. control + ethanol Neg. control vs Anti-miR-9 Neg. control + ethanol vs Anti-miR-9 + ethanol	Anti-miR-9: F (3, 20) = 17.16	p<0.0001 p<0.001 p<0.05 p<0.001
7A	Two-way ANOVA Mir-9 levels in pituitary of FAE rats infused with anti- miR-9 oligo AD – Negative control vs Anti-miR-9 oligo PF - Negative control vs Anti-miR-9 oligo AF - Negative control vs Anti-miR-9 oligo AD vs PF (Negative control) AD vs PF (Anti-miR-9)	Alcohol: F (2, 21) = 12.05 Anti-miR-9: F (1, 21) = 225.5 Interaction: F (2, 21) = 11.91	p= 0.0003 p<0.0001 p= 0.0003 p<0.001 p<0.001 p<0.001 p>0.05 p>0.05

	AD vs AF (Negative control) AD vs AF (Anti-miR-9) PF vs AF (Negative control) PF vs AF (Anti-miR-9)		p<0.001 p>0.05 p<0.001 p>0.05
7B	Two-way ANOVA D2R mRNA levels in pituitary of FAE rats infused with anti- miR-9 oligo AD – Negative control vs Anti-miR-9 oligo PF - Negative control vs Anti-miR-9 oligo AF - Negative control vs Anti-miR-9 oligo AD vs PF (Negative control) AD vs PF (Anti-miR-9) AD vs AF (Negative control) AD vs AF (Anti-miR-9) PF vs AF (Negative control) PF vs AF (Anti-miR-9)	Alcohol: F (2, 18) = 1.467 Anti-miR-9: F (1, 18) = 166 Interaction: F (2, 18) = 50.75	p= 0.2568 p< 0.0001 p<0.0001 p<0.05 p<0.01 p<0.001 p>0.05 p>0.05 p<0.001 p<0.001 p<0.001 p<0.01
7C	Two-way ANOVA D2R protein levels in pituitary of FAE rats infused with anti- miR-9 oligo AD – Negative control vs Anti-miR-9 oligo PF - Negative control vs Anti-miR-9 oligo AF - Negative control vs Anti-miR-9 oligo AD vs PF (Negative control) AD vs PF (Anti-miR-9) AD vs AF (Negative control) AD vs AF (Anti-miR-9) PF vs AF (Negative control) PF vs AF (Anti-miR-9)	Alcohol: F (2, 15) = 2.352 Anti-miR-9: F (1, 15) = 19.15 Interaction: F (2, 15) = 11.45	p= 0.1293 p= 0.0005 p= 0.0010 p>0.05 p>0.05 p>0.01 p>0.05 p>0.05 p<0.01 p<0.01 p<0.01 p>0.05
7D	Two-way ANOVA D2S mRNA levels in pituitary of FAE rats infused with anti- Mir-9 oligo AD – Negative control vs Anti-miR-9 oligo PF - Negative control vs Anti-miR-9 oligo AF - Negative control vs Anti-miR-9 oligo AD vs PF (Negative control) AD vs PF (Anti-miR-9) AD vs AF (Negative control) AD vs AF (Anti-miR-9) PF vs AF (Negative control) PF vs AF (Anti-miR-9)	Alcohol: F (2, 18) = 0.6829 Anti-miR-9: F (1, 18) = 34.75 Interaction: F (2, 18) = 5.971	p= 0.5177 p<0.0001 p= 0.0103 p>0.05 p>0.05 p>0.001 p>0.05 p>0.05 p<0.05 p>0.05 p<0.05 P>0.05
7E	Two-way ANOVA PRL mRNA levels in pituitary of FAE rats infused with anti- miR-9 oligo AD – Negative control vs Anti-miR-9 oligo	Alcohol: F (2, 15) = 5.253 Anti-miR-9: F (1, 15) = 2.407 Interaction: F (2, 15) = 9.418	p= 0.0187 p= 0.1416 p= 0.0022 p>0.05

	PF - Negative control vs Anti-miR-9 oligo AF - Negative control vs Anti-miR-9 oligo AD vs PF (Negative control) AD vs PF (Anti-miR-9) AD vs AF (Negative control) AD vs AF (Anti-miR-9) PF vs AF (Negative control) PF vs AF (Anti-miR-9)		$p > 0.05$ $p < 0.01$ $p > 0.05$ $p > 0.05$ $p < 0.01$ $p > 0.05$ $p < 0.001$ $p > 0.05$
7F	Two-way ANOVA Plasma PRL levels in FAE rats infused with anti-miR-9 oligo AD - Negative control vs Anti-miR-9 oligo PF - Negative control vs Anti-miR-9 oligo AF - Negative control vs Anti-miR-9 oligo AD vs PF (Negative control) AD vs PF (Anti-miR-9) AD vs AF (Negative control) AD vs AF (Anti-miR-9) PF vs AF (Negative control) PF vs AF (Anti-miR-9)	Alcohol: $F(2, 21) = 3.565$ Anti-miR-9: $F(1, 21) = 105.6$ Interaction: $F(2, 21) = 7.706$	$p = 0.0465$ $p < 0.0001$ $p = 0.0031$ $p < 0.01$ $p < 0.001$ $p < 0.001$ $p > 0.05$ $p > 0.05$ $p < 0.001$ $p > 0.05$ $p < 0.01$ $p > 0.05$
8A	One-way ANOVA Luciferase activity of MMQ cells harboring plasmid carrying D2R 3'UTR transfected with negative control oligo or miR-9 mimic oligo Mir-9 mimic vs NC mimic or Mock Mir-9 mimic1 vs NC mimic1 or Mock1	$\text{miR-9 mimic: } F(5, 58) = 14.10$	$p < 0.0001$ $p < 0.001$ $p < 0.05$
8B	One-way ANOVA Effect of miR-9 mimic oligo on luciferase activity of MMQ cells transfected with either WT or mutant D2R 3'UTR containing plasmid Mir-9 mimic vs Neg. control (WT) Mir-9 mimic vs Neg. control (Mut.1) Mir-9 mimic vs Neg. control (Mut. 2) Mir-9 mimic vs Neg. control (Mut. 3)	$\text{miR-9 mimic: } F(7, 37) = 4.384$	$p = 0.0013$ $p < 0.01$ $p > 0.05$ $p > 0.05$ $p > 0.05$