

**Supplementary table 3A.** Relative changes in miRNA levels between the groups at the end of the trial

miRNA	Metformin vs. Metformin+OCP				Metformin vs. OCP				Metformin + OCP vs. OCP			
	Mean Difference	SEM	p-value	95% Confidence Interval	Mean Difference	SEM	p-value	95% Confidence Interval	Mean Difference	SEM	p-value	95% Confidence Interval
miR-122	<b>-0.71</b>	<b>0.24</b>	<b>0.01*</b>	-1.27--0.14	<b>-0.66</b>	<b>0.24</b>	<b>0.02*</b>	-1.24--0.09	0.04	0.22	0.98	-0.49-0.58
miR-1225-3P	0.06	0.10	0.83	-0.18-0.30	0.06	0.10	0.80	-0.18-0.31	0.01	0.09	1.00	-0.21-0.23
miR-1267	0.31	0.18	0.25	-0.17-0.78	0.14	0.21	0.78	-0.39-0.67	-0.17	0.19	0.67	-0.67-0.33
miR-1305	0.17	0.19	0.65	-0.32-0.66	0.11	0.19	0.84	-0.37-0.58	-0.07	0.17	0.92	-0.51-0.37
miR-145	-0.35	0.15	0.07	-0.72-0.02	-0.25	0.15	0.26	-0.62-0.13	0.10	0.14	0.75	-0.24-0.45
miR-151-3p	-0.27	0.18	0.31	-0.70-0.17	-0.17	0.18	0.61	-0.62-0.27	0.09	0.17	0.85	-0.32-0.50
miR-151-5p	-0.23	0.18	0.39	-0.66-0.19	-0.21	0.18	0.48	-0.64-0.22	0.03	0.17	0.99	-0.38-0.43
miR-223	<b>-0.49</b>	<b>0.18</b>	<b>0.02*</b>	-0.93--0.06	-0.30	0.18	0.24	-0.73-0.14	0.20	0.17	0.48	-0.21-0.60
miR-29a	<b>-0.51</b>	<b>0.17</b>	<b>0.01*</b>	-0.93--0.09	<b>-0.43</b>	<b>0.17</b>	<b>0.05*</b>	-0.85--0.01	0.09	0.17	0.86	-0.31-0.48
miR-331	-0.09	0.13	0.77	-0.41-0.23	-0.11	0.13	0.70	-0.43-0.21	-0.02	0.12	0.99	-0.30-0.27
miR-342-3p	-0.35	0.15	0.07	-0.72-0.02	-0.31	0.16	0.12	-0.69-0.06	0.04	0.15	0.96	-0.31-0.39
miR-433	-0.15	0.13	0.51	-0.47-0.17	0.07	0.14	0.85	-0.26-0.41	0.22	0.12	0.16	-0.07-0.51
miR-484	-0.27	0.13	0.09	-0.58-0.03	-0.15	0.13	0.48	-0.46-0.16	0.13	0.12	0.55	-0.16-0.41
miR-518b	0.37	0.26	0.36	-0.29-1.03	0.17	0.28	0.82	-0.53-0.86	-0.20	0.18	0.53	-0.66-0.26
miR-520c	0.09	0.11	0.74	-0.19-0.36	-0.03	0.11	0.97	-0.30-0.25	-0.11	0.11	0.55	-0.37-0.15
miR-572	0.17	0.13	0.43	-0.17-0.51	0.11	0.15	0.75	-0.27-0.49	-0.06	0.13	0.89	-0.40-0.28
miR-574-3p	-0.30	0.13	0.06	-0.61-0.01	-0.22	0.13	0.21	-0.53-0.09	0.08	0.12	0.80	-0.21-0.37
miR-636	0.15	0.11	0.36	-0.11-0.42	0.10	0.11	0.66	-0.17-0.37	-0.05	0.11	0.87	-0.31-0.20
miR-664	-0.02	0.19	1.00	-0.49-0.45	-0.16	0.19	0.70	-0.63-0.32	-0.14	0.15	0.64	-0.51-0.23
miR-720	-0.03	0.17	0.98	-0.43-0.36	0.09	0.17	0.87	-0.32-0.49	0.12	0.16	0.73	-0.26-0.50
miR-769-5p	-0.07	0.14	0.88	-0.41-0.27	-0.06	0.15	0.91	-0.42-0.29	0.00	0.13	1.00	-0.31-0.32

SEM: Standard error of the mean, \*, p<0.05

**Supplementary table 3B.** Paired sample t-test within each treatment group

	Metformin			Metformin + OCP			OCP		
	Mean log difference (CI)	SEM	p	Mean log difference (CI)	SEM	p	Mean log Difference (CI)	SEM	p
miR-122-5p	<b>0.47 (-0.04-0.97)</b>	<b>0.24</b>	<b>0.06</b>	0.00 (-0.40-0.40)	0.19	0.99	-0.16 (-0.48-0.16)	0.15	0.30
miR-1225-3P	0.07 (-0.22-0.35)	0.13	0.62	0.01 (-0.20-0.23)	0.10	0.91	0.25 (-0.01-0.51)	0.12	0.06
miR-1267	0.23 (-0.23-0.68)	0.11	0.17	0.80 (-0.57-2.17)	0.32	0.13	0.58 (-0.19-1.35)	0.18	0.08
miR-1305	-0.07 (-1.16-1.03)	0.25	0.82	0.28 (-0.47-1.00)	0.27	0.35	0.00 (-0.32-0.32)	0.12	0.99
miR-145	0.34 (-0.10-0.78)	0.20	0.12	0.06 (-0.16-0.29)	0.11	0.55	-0.05 (-0.39-0.29)	0.16	0.77
miR-151-3p	<b>0.47 (0.07-0.88)</b>	<b>0.19</b>	<b>0.03*</b>	0.07 (-0.27-0.40)	0.16	0.68	-0.09 (-0.47-0.29)	0.18	0.64
miR-151-5p	0.23 (-0.21-0.68)	0.21	0.28	-0.04 (-0.38-0.29)	0.16	0.79	-0.12 (-0.49-0.24)	0.17	0.49
miR-223	0.20 (-0.17-0.58)	0.18	0.27	-0.26 (-0.64-0.11)	0.18	0.16	-0.39 (-0.90-0.11)	0.24	0.12
miR-29a	<b>0.50 (0.05-0.95)</b>	<b>0.21</b>	<b>0.03*</b>	0.09 (-0.28-0.45)	0.17	0.63	0.06 (-0.27-0.39)	0.16	0.71
miR-331	-0.02 (-0.54-0.49)	0.22	0.92	-0.09 (-0.38-0.20)	0.13	0.51	-0.20 (-0.57-0.18)	0.17	0.28
miR-342-3p	0.08 (-0.34-0.51)	0.20	0.68	-0.11 (-0.43-0.20)	0.15	0.47	-0.26 (-0.58-0.06)	0.15	0.11
miR-433	-0.13 (-0.33-0.08)	0.09	0.19	-0.13 (-0.31-0.06)	0.09	0.17	0.07 (-0.23-0.38)	0.14	0.60
miR-518b	0.22 (-0.11-0.55)	0.58	0.77	-0.13 (-0.55-0.29)	0.18	0.49	<sup>a</sup>		
miR-520c-3p	-0.09 (-0.30-0.12)	0.10	0.38	0.12 (-0.05-0.30)	0.08	0.15	0.04 (-0.25-0.33)	0.14	0.78
miR-572	-0.21 (-0.78-0.35)	0.04	0.13	-0.15 (-0.74-0.43)	0.18	0.47	<sup>a</sup>		
miR-574-3p	0.06 (-0.23-0.35)	0.13	0.66	-0.15 (-0.34-0.05)	0.09	0.13	-0.26 (-0.65-0.12)	0.18	0.17
miR-636	-0.05 (-0.31-0.21)	0.12	0.70	0.14 (-0.08-0.35)	0.10	0.19	<b>0.23 (0.06-0.39)</b>	<b>0.08</b>	<b>0.01*</b>
miR-664	0.11 (-0.48-0.70)	0.19	0.61	0.05 (-0.43-0.53)	0.20	0.82	-0.07 (-0.43-0.29)	0.16	0.67
miR-720	0.33 (-0.05-0.72)	0.18	0.09	0.17 (-0.13-0.47)	0.14	0.24	0.11 (-0.28-0.50)	0.19	0.56
miR-769-5p	0.23 (-0.18-0.64)	0.18	0.23	0.10 (-0.15-0.34)	0.11	0.41	0.08 (-0.19-0.36)	0.12	0.51

CI: Confidence Interval, SEM: Standard Error of the mean, \*p<0,05, <sup>a</sup>: Too few valid pairs