

Table S1 qPCR and RT-PCR Primer Lists				
qPCR primers				
Target	Direction	Sequence	Melting Temperature	Product Size
RP49	F	AGCATACAGGCCCAAGATCG	57.2	113
RP49	R	TGTTGTCGATACCCTTGGGC	57.4	113
ccha1	F	CAGCATCCCTTGCCAAATTCA	61.2	132
ccha1	R	ATTCGCATTCGTATTTCTGTTGC	60.2	132
ccha2	F	CTGGTCGTTATCTGCACCGTG	63	85
ccha2	R	CGTAGCACACATGACCGTAGG	62.5	85
egr	F	CAGCTGATCCCCCTGGTTTT	62	73
egr	R	GCCAGATCGTTAGTGCGAGA	62	73
gbp3	F	ATCCCGAAGGACTGTGTGG	61	113
gbp3	R	TGGTTATTGGGACAGGTGATCC	61.4	113
upd2	F	CGG AAC ATC ACG ATG AGC GAA	57.6	100
upd2	R	TCG GCA GGA ACT TGT ACT CG	56.9	100
RT-PCR Primers				
Target	Direction	Sequence	Melting Temperature	Product Size
alpha tubulin	F	GCT GTT CCA CCC CGA GCA GCT GAT C	75	256
alpha tubulin	R	GGC GAA CTC CAG CTT GGA CTT CTT GC	94	256
upd2	F	CGG AAC ATC ACG ATG AGC GAA	57.6	100
upd2	R	TCG GCA GGA ACT TGT ACT CG	56.9	100
egr	F	ATG ACT GCC GAG ACC CTC AAG CCG	73	1230
egr	R	TTACACCTTGAAGATGCCAAAGTAG	61	1230
sun	F	ACAATGACTGCCTGGAGAGC	60	177
sun	R	TTGGGTTTGACGCTGAGCTG	65	177
gbp1	F	ATC CTA CCG CTG GTC TTC CTC	62	261
gbp1	R	CTC CAG CAA TAT TCG GTT GTC	60	261
gbp2	F	CGC CTC CTT CGT ATT ATC CAG	61	265
gbp2	R	CCA GAT GGT TGT GGT CTA TTG	58	265
gbp3	F	TGG GCA GAA TTT TCC ACA GGG	66	334
gbp3	R	GTC TTC TCG GTG GTG GTT TGG	64	334
ccha1	F	ACT GAC GTC GGA CAA TTT GC	55.9	144
ccha1	R	ACA CGA ATG TCC GTA TTC CA	53.9	144
ccha2	F	GCAACAGAGCCAAGCGAAAA	56.7	313
ccha2	R	ATCAAGTTCACCCAGGCGAG	57.4	313

Table S1:
stunted (sun), gbp1, and gbp2 were potential targets for this project.
100bp ladder was used for gel electrophoresis (New England biolabs N05515)
Extension time increased to 1minute 30 seconds for egr extension

Table S2: qPCR Relative Quantification Values

Target	RQ
Control	1
Control	1
Control	1
ccha1-RNAi	0.214
ccha1-RNAi	0.365
ccha1-RNAi	0.119
Control	1
Control	1
Control	1
ccha2-RNAi	0.341
ccha2-RNAi	0.722
ccha2-RNAi	0.186
Control	1
Control	1
Control	1
gbp3-RNAi	0.852
gbp3-RNAi	0.799
gbp3-RNAi	0.383
Control	1
Control	1
Control	1
upd2 #1 - RNAi	0.283
upd2 #1 - RNAi	0.772
upd2 #1 - RNAi	0.256
upd2 #2 -RNAi	0.236
upd2 #2 -RNAi	0.159
upd2 #2 -RNAi	2.56
Control	1
Control	1
Control	1
egr #1 - RNAi	0.309
egr #1 - RNAi	0.402
egr #1 - RNAi	0.406
egr #2 - RNAi	0.097
egr #2 - RNAi	0.464
egr #2 - RNAi	0.543

Target	Mean	SEM	P-value
Control	1	0	
ccha1-RNAi	0.2327	0.07162	0.0004
ccha2-RNAi	0.4163	0.1592	0.0215
gbp3-RNAi	0.678	0.1483	0.0957
upd2 #1 -RNAi	0.437	0.1677	0.0284
upd2 #2 RNAi	0.985	0.7878	0.9857
egr #1 RNAi	0.3723	0.03169	<0.0001
egr #2 RNAi	0.368	0.1374	0.01

Table S2:
RQ values for qPCR results. P-values generated by
a unpaired Student's T test

Table S3: Expanded qPCR data for Comparative Ct Experiments

Sample	Target	EqCq Mean	Adjusted EqCq Mean	Delta EqCq Mean	Delta EqCq SE	Delta Delta EqCq	RQ	RQ Min	RQ Max
RFP-RNAi E23	RP49	20.68919245	20.68919245						
RFP-RNAi E23	egr	32.9604804	32.9604804	12.27128795	0.191149202	0	1	0.723104	1.382927
RFP-RNAi F23	RP49	20.992607	20.992607						
RFP-RNAi F23	egr	31.0784573	31.0784573	10.0858503	0.058986194	0	1	0.904797	1.10522
RFP-RNAi G24	RP49	20.15253105	20.15253105						
RFP-RNAi G24	egr	32.06877199	32.06877199	11.91624094	0.163152638	0	1	0.758268	1.318795
egr55276 E23	RP49	18.63576446	18.63576446						
egr55276 E23	egr	32.60122136	32.60122136	13.9654569	0.042583747	1.694169	0.3090326	0.2875	0.332178
egr55276 F23	RP49	20.12556658	20.12556658						
egr55276 F23	egr	31.5249651	31.5249651	11.39939852	0.198509069	1.313548	0.4023302	0.287317	0.563382
egr55276 G24	RP49	19.06129076	19.06129076						
egr55276 G24	egr	32.27570425	32.27570425	13.21441349	0.209534798	1.298173	0.406641	0.285016	0.580167

Sample	Target	EqCq Mean	Adjusted EqCq Mean	Delta EqCq Mean	Delta EqCq SE	Delta Delta EqCq	RQ	RQ Min	RQ Max
RFP-RNAi E23	RP49	19.81366322	19.81366322						
RFP-RNAi E23	egr	31.07027417	31.07027417	11.25661094	0.117856665	0	1	0.818818	1.221272
RFP-RNAi F23	RP49	20.34267748	20.34267748						
RFP-RNAi F23	egr	30.43517302	30.43517302	10.09249554	0.174289448	0	1	0.74408	1.343942
RFP-RNAi G24	RP49	19.62275022	19.62275022						
RFP-RNAi G24	egr	31.60723639	31.60723639	11.98448617	0.156239492	0	1	0.767211	1.303422
egr58993 E23	RP49	19.79759847	19.79759847						
egr58993 E23	egr	34.4122801	34.4122801	14.61468164	0.136809569	3.358071	0.0975259	0.07733	0.122997
egr58993 F23	RP49	19.74326781	19.74326781						
egr58993 F23	egr	30.94061521	30.94061521	11.19734741	0.146138821	1.104852	0.4649502	0.362879	0.595733
egr58993 G24	RP49	19.29368374	19.29368374						
egr58993 G24	egr	32.15745793	32.15745793	12.86377418	0.224723105	0.879288	0.5436357	0.371346	0.795862

Sample	Target	EqCq Mean	Adjusted EqCq Mean	Delta EqCq Mean	Delta EqCq SE	Delta Delta EqCq	RQ	RQ Min	RQ Max
B23 GFP-RNAi	RP49	19.61984824	19.61984824						
B23 GFP-RNAi	upd2	32.76079504	32.76079504	13.1409468	0.381678126	0	1	0.52343	1.910477
B23 upd2-RNAi 33988	RP49	24.77572395	24.77572395						
B23 upd2-RNAi 33988	upd2		40	15.22427605		2.083329	0.2359692	0.235969	0.235969
C23 RFP-RNAi	RP49	19.85148947	19.85148947						
C23 RFP-RNAi	upd2	33.16492997	33.16492997	13.3134405	0.182054192	0	1	0.734345	1.361758
C23 upd2-RNAi 33988	RP49	24.03892653	24.03892653						
C23 upd2-RNAi 33988	upd2		40	15.96107347		2.647633	0.1595817	0.159582	0.159582
D23 RFP-RNAi	RP49	20.09767152	20.09767152						
D23 RFP-RNAi	upd2	35.61291987	35.61291987	15.51524836	1.58171077	0	1	0.047645	20.98859
D23 upd2-RNAi 33988	RP49	25.84344085	25.84344085						
D23 upd2-RNAi 33988	upd2		40	14.15655915		-1.35869	2.5645207	2.564521	2.564521

Sample	Target	EqCq Mean	Adjusted EqCq Mean	Delta EqCq Mean	Delta EqCq SE	Delta Delta EqCq	RQ	RQ Min	RQ Max
B23 GFP-RNAi	RP49	19.09565918	19.09565918						
B23 GFP-RNAi	gbp3	22.69273096	22.69273096	3.59707178	0.055437334	0	1	0.910259	1.098588
B23 gbp3-RNAi	RP49	22.16043443	22.16043443						
B23 gbp3-RNAi	gbp3	25.98754318	25.98754318	3.827108757	0.04968619	0.230037	0.852613	0.783706	0.927578
C23 RFP-RNAi	RP49	19.40165348	19.40165348						
C23 RFP-RNAi	gbp3	23.35216444	23.35216444	3.95051096	0.042077423	0	1	0.931121	1.073975
C23 gbp3-RNAi	RP49	18.69689722	18.69689722						
C23 gbp3-RNAi	gbp3	22.97015919	22.97015919	4.27326197	0.028142292	0.322751	0.7995438	0.762277	0.838633
D23 RFP-RNAi	RP49	19.95857179	19.95857179						
D23 RFP-RNAi	gbp3	22.12627588	22.12627588	2.16770409	0.028478146	0	1	0.952847	1.049486
D23 gbp3-RNAi	RP49	18.9851104	18.9851104						
D23 gbp3-RNAi	gbp3	22.53547001	22.53547001	3.550359607	0.030321917	1.382656	0.3835122	0.364288	0.403752

Sample	Target	EqCq Mean	Adjusted EqCq Mean	Delta EqCq Mean	Delta EqCq SE	Delta Delta EqCq	RQ	RQ Min	RQ Max
B23 GFP-RNAi	RP49	18.73111323	18.73111323						
B23 GFP-RNAi	ccha2	22.23946855	22.23946855	3.50835532	0.018444209	0	1	0.969202	1.031777
B23 ccha2-RNAi	RP49	18.17278539	18.17278539						
B23 ccha2-RNAi	ccha2	23.23137113	23.23137113	5.058585743	0.029488294	1.55023	0.3414555	0.324798	0.358967

C23 RFP-RNAi	RP49	19.12742668	19.12742668						
C23 RFP-RNAi	ccha2	22.96135952	22.96135952	3.833932844	0.047940277	0	1	0.921908	1.084707
C23 ccha2-RNAi	RP49	18.88771424	18.88771424						
C23 ccha2-RNAi	ccha2	23.19002581	23.19002581	4.302311571	0.038073865	0.468379	0.7227764	0.677578	0.77099
D23 RFP-RNAi	RP49	19.41094766	19.41094766						
D23 RFP-RNAi	ccha2	22.25445206	22.25445206	2.843504399	0.062762119	0	1	0.899021	1.112321
D23 ccha2-RNAi	RP49	19.06231184	19.06231184						
D23 ccha2-RNAi	ccha2	24.33218749	24.33218749	5.269875651	0.020509983	2.426371	0.1860328	0.179673	0.192618

Sample	Target	EqCq Mean	Adjusted EqCq Mean	Delta EqCq Mean	Delta EqCq SE	Delta EqCq	RQ	RQ Min	RQ Max
RFP-RNAi E23	RP49	19.20251151	19.20251151						
RFP-RNAi E23	ccha1	30.54467828	30.54467828	11.34216676	0.11908201	0	1	0.817118	1.223813
RFP-RNAi F23	RP49	18.36296083	18.36296083						
RFP-RNAi F23	ccha1	28.55613333	28.55613333	10.1931725	0.03704351	0	1	0.939105	1.064844
RFP-RNAi G24	RP49	18.55556525	18.55556525						
RFP-RNAi G24	ccha1	30.14636439	30.14636439	11.59079914	0.147967771	0	1	0.778051	1.285263
ccha1-RNAi 57562 E23	RP49	20.65277065	20.65277065						
ccha1-RNAi 57562 E23	ccha1	34.21462782	34.21462782	13.56185717	0.854960897	2.21969	0.2146874	0.046797	0.984905
ccha1-RNAi 57562 F23	RP49	18.75351046	18.75351046						
ccha1-RNAi 57562 F23	ccha1	30.40069597	30.40069597	11.64718551	0.182887926	1.454013	0.3650047	0.267661	0.497752
ccha1-RNAi 57562 G24	RP49	18.18950888	18.18950888						
ccha1-RNAi 57562 G24	ccha1	32.85142163	32.85142163	14.66191276	0.188714865	3.071114	0.1189879	0.086397	0.163874

Sample	Target	EqCq Mean	Adjusted EqCq Mean	Delta EqCq Mean	Delta EqCq SE	Delta EqCq	RQ	RQ Min	RQ Max
B23 GFP-RNAi	RP49	19.0257202	19.0257202						
B23 GFP-RNAi	upd2	32.22404043	32.22404043	13.19832023	0.285910533	0	1	0.615744	1.624052
B23 upd2-RNAi 33949	RP49	24.98127187	24.98127187						
B23 upd2-RNAi 33949	upd2		40	15.01872813		1.820408	0.2831409	0.283141	0.283141
C23 RFP-RNAi	RP49	18.81083098	18.81083098						
C23 RFP-RNAi	upd2	33.63295029	33.63295029	14.8221193	0.550150515	0	1	0.375216	2.665132
C23 upd2-RNAi 33949	RP49	24.8048855	24.8048855						
C23 upd2-RNAi 33949	upd2		40	15.1951145		0.372995	0.7721777	0.772178	0.772178
D23 RFP-RNAi	RP49	20.10546946	20.10546946						
D23 RFP-RNAi	upd2	34.20024682	34.20024682	14.09477735	0.494827562	0	1	0.385857	2.591633
D23 upd2-RNAi 33949	RP49	23.94085437	23.94085437						
D23 upd2-RNAi 33949	upd2		40	16.05914563		1.964368	0.2562514	0.256251	0.256251

Table S3: Detailed Comparative Ct data for qPCR

Table S4: Ave

	RFP RNAi			
100-400	20.4	32	27.7	27.3
500-1000	60.4	64	63.3	67
1100 and up	19.2	4	10	5.7

	egr 58993			
100-400	3.4	2.7	24.1	32.9
500-1000	75.3	62.6	63.8	54.3
1100 and up	21.3	34.7	12	12.8

One Way ANOVA Less than 400				
Number of families	1			
Number of comparisons per family	7			
Alpha	0.05			
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary
RFP RNAi vs. CChA1 RNAi	12.8	-10.54 to 36.14	No	ns
RFP RNAi vs. CChA2 RNAi	4.5	-18.84 to 27.84	No	ns
RFP RNAi vs. egr 55276	13.68	-9.666 to 37.02	No	ns
RFP RNAi vs. egr 58993	11.08	-12.27 to 34.42	No	ns
RFP RNAi vs. Gbp3 RNAi	7.475	-15.87 to 30.82	No	ns
RFP RNAi vs. upd 2 33949	11.95	-11.39 to 35.29	No	ns
RFP RNAi vs. upd 2 33988	2.225	-21.12 to 25.57	No	ns
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.
RFP RNAi vs. CChA1 RNAi	26.85	14.05	12.8	8.293
RFP RNAi vs. CChA2 RNAi	26.85	22.35	4.5	8.293
RFP RNAi vs. egr 55276	26.85	13.18	13.68	8.293
RFP RNAi vs. egr 58993	26.85	15.78	11.08	8.293
RFP RNAi vs. Gbp3 RNAi	26.85	19.38	7.475	8.293
RFP RNAi vs. upd 2 33949	26.85	14.9	11.95	8.293
RFP RNAi vs. upd 2 33988	26.85	24.63	2.225	8.293

One-Way ANOVA 500-1000				
Number of families	1			
Number of comparisons per family	7			
Alpha	0.05			

Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary
RFP RNAi vs. CCHa1 RNAi	-3.75	-16.30 to 8.796	No	ns
RFP RNAi vs. CCHa2 RNAi	3.675	-8.871 to 16.22	No	ns
RFP RNAi vs. egr 55276	-5.15	-17.70 to 7.396	No	ns
RFP RNAi vs. egr 58993	-0.325	-12.87 to 12.22	No	ns
RFP RNAi vs. Gbp3 RNAi	0.475	-12.07 to 13.02	No	ns
RFP RNAi vs. upd 2 33949	-2.65	-15.20 to 9.896	No	ns
RFP RNAi vs. upd 2 33988	2.475	-10.07 to 15.02	No	ns
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.
RFP RNAi vs. CCHa1 RNAi	63.68	67.43	-3.75	4.458
RFP RNAi vs. CCHa2 RNAi	63.68	60	3.675	4.458
RFP RNAi vs. egr 55276	63.68	68.83	-5.15	4.458
RFP RNAi vs. egr 58993	63.68	64	-0.325	4.458
RFP RNAi vs. Gbp3 RNAi	63.68	63.2	0.475	4.458
RFP RNAi vs. upd 2 33949	63.68	66.33	-2.65	4.458
RFP RNAi vs. upd 2 33988	63.68	61.2	2.475	4.458

One-Way ANOVA Greater than 1100				
Number of families	1			
Number of comparisons per family	7			
Alpha	0.05			
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary
RFP RNAi vs. CCHa1 RNAi	-8.8	-25.47 to 7.866	No	ns
RFP RNAi vs. CCHa2 RNAi	-7.925	-24.59 to 8.741	No	ns
RFP RNAi vs. egr 55276	-8.275	-24.94 to 8.391	No	ns
RFP RNAi vs. egr 58993	-10.48	-27.14 to 6.191	No	ns
RFP RNAi vs. Gbp3 RNAi	-7.525	-24.19 to 9.141	No	ns
RFP RNAi vs. upd 2 33949	-9.025	-25.69 to 7.641	No	ns
RFP RNAi vs. upd 2 33988	-4.45	-21.12 to 12.22	No	ns
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.
RFP RNAi vs. CCHa1 RNAi	9.725	18.53	-8.8	5.922
RFP RNAi vs. CCHa2 RNAi	9.725	17.65	-7.925	5.922
RFP RNAi vs. egr 55276	9.725	18	-8.275	5.922
RFP RNAi vs. egr 58993	9.725	20.2	-10.48	5.922
RFP RNAi vs. Gbp3 RNAi	9.725	17.25	-7.525	5.922
RFP RNAi vs. upd 2 33949	9.725	18.75	-9.025	5.922
RFP RNAi vs. upd 2 33988	9.725	14.18	-4.45	5.922

rage Adipocyte Size Binned Distributions and ANOVA

CCHa1 RNAi				CCHa2 RNAi				
13.4	6.7	29.1	7	36.7	4	34.7	14	2.7
73.3	72	57.3	67.1	50	69.3	58	62.7	70
13.3	21.3	13.6	25.9	13.3	26.7	7.3	23.3	27.3

Gbp3 RNAi				upd 2 33949				
12.7	18	10.8	36	24	4.5	25.2	5.9	34.5
64.6	71.3	64.9	52	66.7	68.2	64.5	65.9	52.7
22.7	10	24.3	12	9.3	27.3	10.3	28.1	12.8

Adjusted P Value	A-?		
0.4936	B	CCHa1 RNAi	
0.9922	C	CCHa2 RNAi	
0.4267	D	egr 55276	
0.6357	E	egr 58993	
0.9025	F	Gbp3 RNAi	
0.5624	G	upd 2 33949	
>0.9999	H	upd 2 33988	
n1	n2	q	DF
4	4	1.543	24
4	4	0.5426	24
4	4	1.649	24
4	4	1.335	24
4	4	0.9013	24
4	4	1.441	24
4	4	0.2683	24

Adjusted P Value	A-?		
0.9274	B	CCHa1 RNAi	
0.9336	C	CCHa2 RNAi	
0.759	D	egr 55276	
>0.9999	E	egr 58993	
>0.9999	F	Gbp3 RNAi	
0.987	G	upd 2 33949	
0.9911	H	upd 2 33988	
n1	n2	q	DF
4	4	0.8412	24
4	4	0.8244	24
4	4	1.155	24
4	4	0.0729	24
4	4	0.1066	24
4	4	0.5944	24
4	4	0.5552	24

Adjusted P Value	A-?		
0.5317	B	CCHa1 RNAi	
0.6336	C	CCHa2 RNAi	
0.5925	D	egr 55276	
0.3572	E	egr 58993	
0.6807	F	Gbp3 RNAi	
0.5063	G	upd 2 33949	
0.9567	H	upd 2 33988	
n1	n2	q	DF
4	4	1.486	24
4	4	1.338	24
4	4	1.397	24
4	4	1.769	24
4	4	1.271	24
4	4	1.524	24
4	4	0.7515	24

egr 55276		
7.3	28	14.7
68	68	69.3
24.7	4	16

upd 2 33988		
13.9	32	18.1
68.6	58.7	64.8
17.5	9.3	17.1

	less than 10			
RFP RNAi	32	18.7		19
CCHa1 RNAi	24	21.4	18	26
CCHa2 RNAi	22	17.6	12	22
egr 55276	24	23.1	20	25
egr 58993	32.6	22	19	
Gbp3 RNAi	35	19.3		
upd 2 33949	30	16.3		18
upd 2 33988	28	22	21	21

One-Way ANOVA less than 10				
Number of families	1			
Number of comparisons per family	7			
Alpha	0.05			
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary
RFP RNAi vs. CCHa1 RNAi	1.075	-10.48 to 12.63	No	ns
RFP RNAi vs. CCHa2 RNAi	1.525	-10.03 to 13.08	No	ns
RFP RNAi vs. egr 55276	-0.85	-12.40 to 10.70	No	ns
RFP RNAi vs. egr 58993	-5.375	-19.52 to 8.771	No	ns
RFP RNAi vs. Gbp3 RNAi	-5.225	-19.37 to 8.921	No	ns
RFP RNAi vs. upd 2 33949	0.6	-10.95 to 12.15	No	ns
RFP RNAi vs. upd 2 33988	-1.742	-14.22 to 10.73	No	ns
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.
RFP RNAi vs. CCHa1 RNAi	21.93	20.85	1.075	3.989
RFP RNAi vs. CCHa2 RNAi	21.93	20.4	1.525	3.989
RFP RNAi vs. egr 55276	21.93	22.78	-0.85	3.989
RFP RNAi vs. egr 58993	21.93	27.3	-5.375	4.885
RFP RNAi vs. Gbp3 RNAi	21.93	27.15	-5.225	4.885
RFP RNAi vs. upd 2 33949	21.93	21.33	0.6	3.989
RFP RNAi vs. upd 2 33988	21.93	23.67	-1.742	4.308

One-Way ANOVA 10-20				
Number of families	1			
Number of comparisons per family	7			
Alpha	0.05			
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary
RFP RNAi vs. CCHa1 RNAi	4.308	-11.39 to 20.00	No	ns

RFP RNAi vs. CCHa2 RNAi	1.333	-14.36 to 17.03	No	ns
RFP RNAi vs. egr 55276	2.508	-13.19 to 18.20	No	ns
RFP RNAi vs. egr 58993	-1	-17.78 to 15.78	No	ns
RFP RNAi vs. Gbp3 RNAi	-2.767	-21.53 to 15.99	No	ns
RFP RNAi vs. upd 2 33949	-1.7	-18.48 to 15.08	No	ns
RFP RNAi vs. upd 2 33988	2.083	-13.61 to 17.78	No	ns
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.
RFP RNAi vs. CCHa1 RNAi	48.43	44.13	4.308	5.491
RFP RNAi vs. CCHa2 RNAi	48.43	47.1	1.333	5.491
RFP RNAi vs. egr 55276	48.43	45.93	2.508	5.491
RFP RNAi vs. egr 58993	48.43	49.43	-1	5.87
RFP RNAi vs. Gbp3 RNAi	48.43	51.2	-2.767	6.562
RFP RNAi vs. upd 2 33949	48.43	50.13	-1.7	5.87
RFP RNAi vs. upd 2 33988	48.43	46.35	2.083	5.491

One-way ANOVA 30-50				
Number of families	1			
Number of comparisons per family	7			
Alpha	0.05			
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary
RFP RNAi vs. CCHa1 RNAi	-0.1583	-9.302 to 8.985	No	ns
RFP RNAi vs. CCHa2 RNAi	2.392	-6.752 to 11.54	No	ns
RFP RNAi vs. egr 55276	-0.03333	-9.177 to 9.110	No	ns
RFP RNAi vs. egr 58993	1.467	-8.308 to 11.24	No	ns
RFP RNAi vs. Gbp3 RNAi	2.817	-8.112 to 13.75	No	ns
RFP RNAi vs. upd 2 33949	1.233	-8.541 to 11.01	No	ns
RFP RNAi vs. upd 2 33988	2.217	-6.927 to 11.36	No	ns
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.
RFP RNAi vs. CCHa1 RNAi	13.47	13.63	-0.1583	3.199
RFP RNAi vs. CCHa2 RNAi	13.47	11.08	2.392	3.199
RFP RNAi vs. egr 55276	13.47	13.5	-0.03333	3.199
RFP RNAi vs. egr 58993	13.47	12	1.467	3.419
RFP RNAi vs. Gbp3 RNAi	13.47	10.65	2.817	3.823
RFP RNAi vs. upd 2 33949	13.47	12.23	1.233	3.419
RFP RNAi vs. upd 2 33988	13.47	11.25	2.217	3.199

One-Way ANOVA 60-90				
Number of families	1			
Number of comparisons per family	7			
Alpha	0.05			

Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary
RFP RNAi vs. CCHa1 RNAi	0.5167	-7.166 to 8.199	No	ns
RFP RNAi vs. CCHa2 RNAi	-1.758	-9.441 to 5.924	No	ns
RFP RNAi vs. egr 55276	0.4667	-7.216 to 8.149	No	ns
RFP RNAi vs. egr 58993	1.1	-7.113 to 9.313	No	ns
RFP RNAi vs. Gbp3 RNAi	1.617	-7.566 to 10.80	No	ns
RFP RNAi vs. upd 2 33949	0.5667	-7.647 to 8.780	No	ns
RFP RNAi vs. upd 2 33988	-1.183	-8.866 to 6.499	No	ns
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.
RFP RNAi vs. CCHa1 RNAi	6.967	6.45	0.5167	2.688
RFP RNAi vs. CCHa2 RNAi	6.967	8.725	-1.758	2.688
RFP RNAi vs. egr 55276	6.967	6.5	0.4667	2.688
RFP RNAi vs. egr 58993	6.967	5.867	1.1	2.873
RFP RNAi vs. Gbp3 RNAi	6.967	5.35	1.617	3.212
RFP RNAi vs. upd 2 33949	6.967	6.4	0.5667	2.873
RFP RNAi vs. upd 2 33988	6.967	8.15	-1.183	2.688

One-way ANOVA over 100				
Number of families	1			
Number of comparisons per family	7			
Alpha	0.05			
Dunnett's multiple comparisons test	Mean Diff.	95.00% CI of diff.	Below threshold?	Summary
RFP RNAi vs. CCHa1 RNAi	-5.55	-20.11 to 9.007	No	ns
RFP RNAi vs. CCHa2 RNAi	-5.55	-20.11 to 9.007	No	ns
RFP RNAi vs. egr 55276	-2.85	-17.41 to 11.71	No	ns
RFP RNAi vs. egr 58993	-0.2667	-15.83 to 15.30	No	ns
RFP RNAi vs. Gbp3 RNAi	2.25	-15.15 to 19.65	No	ns
RFP RNAi vs. upd 2 33949	-1.9	-17.46 to 13.66	No	ns
RFP RNAi vs. upd 2 33988	-3.35	-17.91 to 11.21	No	ns
Test details	Mean 1	Mean 2	Mean Diff.	SE of diff.
RFP RNAi vs. CCHa1 RNAi	7.9	13.45	-5.55	5.092
RFP RNAi vs. CCHa2 RNAi	7.9	13.45	-5.55	5.092
RFP RNAi vs. egr 55276	7.9	10.75	-2.85	5.092
RFP RNAi vs. egr 58993	7.9	8.167	-0.2667	5.444
RFP RNAi vs. Gbp3 RNAi	7.9	5.65	2.25	6.086
RFP RNAi vs. upd 2 33949	7.9	9.8	-1.9	5.444
RFP RNAi vs. upd 2 33988	7.9	11.25	-3.35	5.092

Table S5: Lipid Droplet Bin Distributions and ANOVA

Binned Lipid Droplet Size								
10-20				30-50				
56	46.3		43	9	16.4		15	2
55	43.5	41	37	13	11.5	20	10	5
56	41.4	43	48	14	1.3	17	12	4
56	38.7	45	44	12	13	14	15	4
57	45.3	46		7.8	14.2	14		
55	47.4			7	14.3			1.7
57.4	46		47	8.4	15.3		13	2.2
59	39.4	45	42	10	9	15	11	2

Adjusted P Value	A-?		
>0.9999	B	CCHa1 RNAi	
0.9992	C	CCHa2 RNAi	
>0.9999	D	egr 55276	
0.8137	E	egr 58993	
0.8314	F	Gbp3 RNAi	
>0.9999	G	upd 2 33949	
0.9989	H	upd 2 33988	
n1	n2	q	DF
4	4	0.2695	19
4	4	0.3823	19
4	4	0.2131	19
4	2	1.1	19
4	2	1.07	19
4	4	0.1504	19
4	3	0.4042	19

Adjusted P Value	A-?		
0.941	B	CCHa1 RNAi	

>0.9999	C	CCHa2 RNAi	
0.9966	D	egr 55276	
>0.9999	E	egr 58993	
0.9979	F	Gbp3 RNAi	
0.9998	G	upd 2 33949	
0.9989	H	upd 2 33988	
n1	n2	q	DF
3	4	0.7847	19
3	4	0.2428	19
3	4	0.4568	19
3	3	0.1704	19
3	2	0.4216	19
3	3	0.2896	19
3	4	0.3794	19

Adjusted P Value	A-?		
>0.9999	B	CCHa1 RNAi	
0.9526	C	CCHa2 RNAi	
>0.9999	D	egr 55276	
0.9977	E	egr 58993	
0.9558	F	Gbp3 RNAi	
0.9992	G	upd 2 33949	
0.967	H	upd 2 33988	
n1	n2	q	DF
3	4	0.0495	19
3	4	0.7477	19
3	4	0.01042	19
3	3	0.4289	19
3	2	0.7368	19
3	3	0.3607	19
3	4	0.693	19

Adjusted P Value	A-?		
>0.9999	B	CCHa1 RNAi	
0.9752	C	CCHa2 RNAi	
>0.9999	D	egr 55276	
0.9988	E	egr 58993	
0.994	F	Gbp3 RNAi	
>0.9999	G	upd 2 33949	
0.9973	H	upd 2 33988	
n1	n2	q	DF
3	4	0.1922	19
3	4	0.6542	19
3	4	0.1736	19
3	3	0.3829	19
3	2	0.5033	19
3	3	0.1972	19
3	4	0.4403	19

Adjusted P Value	A-?		
0.7897	B	CCHa1 RNAi	
0.7897	C	CCHa2 RNAi	
0.9891	D	egr 55276	
>0.9999	E	egr 58993	
0.9991	F	Gbp3 RNAi	
0.9993	G	upd 2 33949	
0.9745	H	upd 2 33988	
n1	n2	q	DF
3	4	1.09	19
3	4	1.09	19
3	4	0.5597	19
3	3	0.04899	19
3	2	0.3697	19
3	3	0.349	19
3	4	0.6579	19

60-90			100 and above			
8.9		10	1	9.7		13
6.8	5	9	3	16.8	16	18
9.9	12	9	3	16.8	16	18
9	6	7	4	15	15	9
1.7	8.5	7.4	0.9	10	13.6	
9			1.3	10		
9		8	2	13.4		14
12.6	9	9	1	17	10	17

Table S6 Triglyceride and Bradford Fold Changes

Triglyceride:Protein Fold Change Relative to Controls						
Trial	Control	ccha1	ccha2	egr-55276	egr-58993	gbp3
A	1	1.86	0.91	1	1.792	1.603
B	1.000003856	2.546820356	0.828357902	1.000003856	1.838183122	1.172988544
C	1.000000115	0.813810141	1.580701794	1.000000115	0.818629091	1.041168646
D	1.000000058	2.473857483	3.58542908	1.000000058	2.168469676	4.590325888
Ea	0.999999995	1.832355903	5.228799133			
Eb	1.000000515			3.447582421	2.697705471	
Ec	1.000003394					
Ed	1.000000152					1.218381041

Average	1	1.902	2.427	1.968	1.863	1.925
SEM	5.751E-07	0.3109	0.8592	0.4844	0.3071	0.6728
P-Value		0.003	0.0537	0.0247	0.0038	0.1012

P values generated using Student's t test where each transgene group is compared to the control

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upd2-33949	upd2-33988
2.066	2.321
1.240584494	0.981321719
1.278522292	0.814926397
2.467407625	1.412407966
1.448325329	1.770547092

1.7	1.46
0.2424	0.2725
0.0032	0.0504

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Table S7: GSC and CC Count Summarization

	t0 Control	t0 ccha1	t0 ccha2	t0 egr #1	t0 egr #2	t0 gbp3	t0 upd2 #1
Biological replicates	9	2	2	6	7	3	3
Minimum	1.838	2.219	2.482	1.902	1.446	2.121	1.874
Maximum	2.526	2.287	2.596	2.504	2.247	2.17	2.622
Range	0.688	0.068	0.114	0.602	0.801	0.049	0.748
Mean	2.202	2.253	2.539	2.215	1.995	2.144	2.25
Std. Deviation	0.2156	0.04808	0.08061	0.2343	0.2749	0.0247	0.374
Std. Error of Mean	0.07187	0.034	0.057	0.09566	0.1039	0.01426	0.2159
	t0 Control	t0 ccha1	t0 ccha2	t0 egr #1	t0 egr #2	t0 gbp3	t0 upd2 #1
Biological Replicates	9	2	2	6	7	3	3
Minimum	56	94	114	78	76	53	114
Maximum	137	96	114	123	144	99	135
Range	81	2	0	45	68	46	21
Sum	945	190	228	628	734	238	368
	t10 Control	t10 ccha1	t10 ccha2	t10 egr #1	t10 egr #2	t10 gbp3	t10 upd2 #1
Number of values	9	2	2	6	7	3	3
Minimum	1.879	2.2	2.175	1.849	1.871	1.714	2.073
Maximum	2.27	2.391	2.278	2.282	2.35	2.108	2.214
Range	0.391	0.191	0.103	0.433	0.479	0.394	0.141
Mean	2.073	2.296	2.227	2.075	2.15	1.974	2.158
Std. Deviation	0.1409	0.1351	0.07283	0.1873	0.1867	0.2249	0.07504
Std. Error of Mean	0.04696	0.0955	0.0515	0.07647	0.07056	0.1299	0.04332
2 -way ANOVA		ccha1	ccha2	egr #1	egr #2	gbp3	upd2 #1
Interaction p-value		0.3939	0.353	0.94	0.0637	0.8094	0.8484
genotype p-value		0.651	0.0338	0.0745	0.861	0.0899	0.2611
time p-value		0.1783	0.0198	0.9183	0.3844	0.3605	0.4944

t0 upd2 #2
2
2.444
2.469
0.025
2.457
0.01768
0.0125
t0 upd2 #2
2
113
124
11
237
t10 upd2 #2
2
2.431
2.488
0.057
2.46
0.04031
0.0285
upd2 #2
0.4971
0.5166
0.0034

Table S8: Average Dcp-1 Positive Germlaria Counts

Trial #	RFP-RNAi	ccha1-RNAi	ccha2-RNAi	egr-RNAi #1	egr-RNAi #2	gbp3-RNAi	upd2-RNAi #1	upd2-RNAi #2
1	26.12613	33.980583	43.089431	33.333333	49.166667	43.68932	51.879699	44.654088
2	34.10853	45.070423	26.923077	33.673469	43.010753	20.689655	46.153846	42.990654
3	20.45455	17.431193	35.39823	40	45.631068	17.647059	40.366972	28.440367
4	33.33333	36.521739	39.175258	39.316239	33.62069	41.322314	33.928571	30.894309
Average	28.51	33.25	36.15	36.58	42.86	30.84	43.08	36.74
SEM	3.23	5.782	3.452	1.784	3.327	6.783	3.851	4.131
p-value		0.5006	0.1572	0.0712	0.0213	0.7668	0.0273	0.1672

P-values generated by a Student's T test where each transgene group was compared to the control.

Table S9: Average Number of Dying Vitellogenic Follicles

Trial #	RFP-RNAi	ccha1-RNAi	ccha2-RNAi	egr-RNAi #1	egr-RNAi #2	gbp3-RNAi	upd2-RNAi #1	upd2-RNAi #2
1	18.01802	22.3300971	14.6341463	17.1717172	10.8333333	24.271845	12.78195489	22.64150943
2	9.448819	21.3333333	16.3043478	13.6363636	19.5876289	6.6037736	13.44537815	15.90909091
3	12.5	26.1437909	31.8181818	19.8198198	23.5294118	8.3333333	14.42307692	20.93023256
4	11.11111	21.5517241	9.9378882	8.87096774	27.34375	24.770642	16.79389313	24
5	20	30.0884956	31.4814815					
6	14.07407			23.4693878	29.9270073			
7	10.9375						20.45454545	31.78807947
8	18.96552					22.857143		
Average	14.38	24.29	20.84	16.59	22.24	17.37	15.58	23.05
SEM	1.441	1.69	4.537	2.514	3.346	4.063	1.396	2.578
p-value		0.0011	0.1306	0.4264	0.0306	0.4285	0.5872	0.0085

P-values generated by a Student's T test where each transgene group was compared to the control.

Table S10: Blocked Ovulation Averages

Trial	RFP	egr #1	egr #2	upd2 #1	upd2 #2	ccha1	ccha2	gbp3
1	38.69048	25	29.16667	16.66667	41.66667	16.66667	29.16667	58.33333
2	25	35	35	5	37.5	17.64706	55.55556	78.57143
3	25	66.666	60	46.666	47.0588	0	42.857	90.9
Average	29.56	42.22	41.39	22.78	42.08	11.44	42.53	75.93
SEM	4.563	12.56	9.457	12.41	2.767	5.726	7.62	9.493
p-value		0.3971	0.3231	0.6348	0.079	0.0685	0.2182	0.0117

P-values generated by a Student's T test where each transgene group was compared to the control.