

## SUPPLEMENTARY TABLES

**Supplementary Table 1. Statistical analysis of homogeneity of variation, sources of variation and main effects for follicle number per area as a function of diet and age.**

Follicle Class	Levene's test for homogeneity of variance	Source of variation		
		Interaction	Diet	Age
Total	ns: $p = 0.1451$	ns: $p = 0.1815$	ns: $p = 0.1667$	** $p = 0.0010$
Primordial	ns: $p = 0.9574$	ns: $p = 0.1592$	ns: $p = 0.2856$	*** $p = 0.0009$
Tr. Primordial	ns: $p = 0.639$	ns: $p = 0.2391$	ns: $p = 0.2145$	*** $p = 0.00005$
Primary	ns: $p = 0.7207$	ns: $p = 0.7258$	ns: $p = 0.4527$	*** $p = 0.0007$
Tr. Primary	ns: $p = 0.6891$	ns: $p = 0.4048$	ns: $p = 0.4350$	** $p = 0.0090$
Secondary	ns: $p = 0.8815$	ns: $p = 0.2913$	ns: $p = 0.4619$	*** $p = 0.0003$
Multilayer	*0.0416	ns: $p = 0.1736$	ns: $p = 0.4053$	** $p = 0.0077$
Antral	ns: $p = 0.8419$	ns: $p = 0.9163$	ns: $p = 0.2701$	ns: $p = 0.0726$
Multi-oocytic	ns: $p = 0.2819$	ns: $p = 0.5965$	ns: $p = 0.9949$	** $p = 0.0017$
Secondary with AMF	ns: $p = 0.9453$	ns: $p = 0.1755$	ns: $p = 0.1633$	ns: $p = 0.0654$
Multilayer with AMF	ns: $p = 0.6337$	ns: $p = 0.6040$	ns: $p = 0.8870$	ns: $p = 0.1440$
Atretic Antral	ns: 0.8485	ns: $p = 0.7445$	ns: $p = 0.7463$	** $p = 0.0012$

**Supplementary Table 2. Animal characteristics, including age at necropsy, cyclicity, and ovary weight for each individual animal in the study.**

	Animal ID	Group	Age at necropsy (yrs)	Cyclicity	Ovary weight (mg)
Y-CON-1	22360	Young, Control	10	Regular	326
Y-CON-2	22362	Young, Control	13	Regular	578
Y-CON-3	22365	Young, Control	13	Regular	314
Y-CON-4	22367	Young, Control	13	Regular	314
O-CON-1	22342	Old, Control	26	Non-cycling	151
O-CON-2	22343	Old, Control	22	Irregular	377
O-CON-3	22345	Old, Control	26	Non-cycling	155
O-CON-4	22350	Old, Control	22	Irregular	200
O-CON-5	22351	Old, Control	22	Irregular	255
O-CON-6	22352	Old, Control	19	Regular	326
O-CON-7	22355	Old, Control	25	Irregular	340
O-CON-8	22368	Old, Control	25	Irregular	145
Y-CR-1	22357	Young, CR	13	Regular	400
Y-CR-2	22359	Young, CR	13	Regular	205
Y-CR-3	22361	Young, CR	13	Regular	360
Y-CR-4	22364	Young, CR	13	Regular	554
O-CR-1	22341	Old, CR	26	Irregular	226
O-CR-2	22347	Old, CR	25	Non-cycling	72
O-CR-3	22353	Old, CR	21	Irregular	210
O-CR-4	22354	Old, CR	20	Irregular	165
O-CR-5	22356	Old, CR	23	Irregular	125

**Supplementary Table 3. Statistical analysis of homogeneity of variation, sources of variation and main effects for standardized follicle count (SFC) as a function of diet and age.**

Follicle Class	Levene's test for homogeneity of variance	Source of variation		
		Interaction	Diet	Age
Total	ns: $p = 0.1621$	ns: $p = 0.3015$	ns: $p = 0.2005$	*** $p = 0.0005$
Primordial	ns: $p = 0.9553$	ns: $p = 0.2947$	ns: $p = 0.3586$	*** $p = 0.0006$
Tr. Primordial	ns: $p = 0.5130$	ns: $p = 0.3298$	ns: $p = 0.2103$	*** $p = 0.0003$
Primary	ns: $p = 0.7806$	ns: $p = 0.8938$	ns: $p = 0.5039$	*** $p = 0.0004$
Tr. Primary	ns: $p = 0.4447$	ns: $p = 0.5693$	ns: $p = 0.4096$	** $p = 0.0039$
Secondary	ns: $p = 0.8815$	ns: $p = 0.7486$	ns: $p = 0.6251$	*** $p = 0.0002$
Multilayer	ns: $p = 0.1038$	ns: $p = 0.3257$	ns: $p = 0.4218$	** $p = 0.0015$
Antral	ns: $p = 0.5314$	ns: $p = 0.6601$	ns: $p = 0.3867$	* $p = 0.0352$
Multi-oocytic	ns: $p = 0.5401$	ns: $p = 0.5215$	ns: $p = 0.9632$	** $p = 0.0012$
Secondary with AMF	ns: $p = 0.9874$	ns: $p = 0.4689$	ns: $p = 0.3682$	* $p = 0.0353$
Multilayer with AMF	ns: $p = 0.7935$	ns: $p = 0.8251$	ns: $p = 0.8936$	ns: $p = 0.0896$
Atretic Antral	ns: $p = 0.8685$	ns: $p = 0.9752$	ns: $p = 0.7993$	*** $p = 0.0007$

**Supplementary Table 4. Raw follicle number data (mean/median/min/max) for young control, young calorie-restricted (CR), old control, and old calorie-restricted (CR) for all follicle classes (normal and abnormal).**

		Primordial	Tr. Primordial	Primary	Tr. Primary	Secondary	Multilayer	Antral	Total	Secondary AMF	Multilayer AMF	Atretic Antral	Multi-oocytic
Young CON	Mean	232	448	24.3	50.8	29.8	38	6	828.8	14.3	10.8	24.3	15.3
	Median	201.5	387	21	40.5	28	39.5	5	727	14	12	23.5	13
	Min.	30	105	11	25	14	15	0	221	0	2	2	6
	Max.	495	913	44	97	49	58	14	1640	29	17	48	29
Young CR	Mean	209	490.8	35.5	59.3	26.3	28.5	12.8	862	28.5	10.8	19.3	12.3
	Median	241.5	590	31	65.5	28	23	11.5	1037	15	12.5	17.5	12
	Min.	2	21	7	4	5	6	1	48	0	0	1	2
	Max.	351	762	73	102	44	62	27	1326	84	18	41	23
Old CON	Mean	9.4	26	4.8	8.7	3	4.9	1.8	58.4	0.875	1.875	6.5	1.8
	Median	0.5	1.5	0	0.5	0	1.5	0.5	5.5	0	0	2.5	1
	Min.	0	0	0	0	0	0	0	0	0	0	0	0
	Max.	69	176	31	40	14	16	7	351	4	7	28	5
Old CR	Mean	13.8	31.4	2.8	9	3.2	5.8	1.2	67.2	0.2	3.6	7.8	1.6
	Median	13	21	2	8	4	6	1	59	0	3	3	0
	Min.	0	1	0	0	0	1	0	7	0	0	0	0
	Max.	28	87	7	19	6	10	2	153	1	7	25	5

**Supplementary Table 5. Statistical analysis of homogeneity of variation, sources of variation and main effects for follicle number per area as a function of diet and menstrual cyclicity.**

Follicle class	Source of variation			
	Levene's test for homogeneity of variance	Interaction	Diet	Menstrual cyclicity
Total	ns: $p = 0.6020$	ns: $p = 0.1831$	ns: $p = 0.708$	*** $p = 0.0007$
Primordial	ns: $p = 0.8660$	ns: $p = 0.1527$	ns: $p = 0.1339$	*** $p = 0.0006$
Tr. Primordial	ns: $p = 0.9522$	ns: $p = 0.2370$	ns: $p = 0.0864$	*** $p = 0.0003$
Primary	ns: $p = 0.1314$	ns: $p = 0.4250$	ns: $p = 0.2130$	*** $p = 0.0001$
Tr. Primary	ns: $p = 0.6412$	ns: $p = 0.4304$	ns: $p = 0.3076$	** $p = 0.0047$
Secondary	ns: $p = 0.7078$	ns: $p = 0.2215$	ns: $p = 0.2396$	*** $p = 0.0001$
Multilayer	ns: $p = 0.5879$	ns: $p = 0.1286$	ns: $p = 0.2682$	** $p = 0.0088$
Antral	ns: $p = 0.9515$	ns: $p = 0.9224$	ns: $p = 0.2219$	ns: $p = 0.976$
Multi-oocytic	ns: $p = 0.3765$	ns: $p = 0.9427$	ns: $p = 0.7696$	** $p = 0.0033$
Secondary with AMF	ns: $p = 0.7987$	ns: $p = 0.2253$	ns: $p = 0.1245$	ns: $p = 0.691$
Multilayer with AMF	ns: $p = 0.1052$	ns: $p = 0.6450$	ns: $p = 0.7790$	ns: $p = 0.2250$
Atretic Antral	ns: $p = 0.1153$	ns: $p = 0.6691$	ns: $p = 0.9526$	** $p = 0.0021$

**Supplementary Table 6. Statistical analysis of homogeneity of variation, sources of variation and main effects for standardized follicle count (SFC) as a function of diet and menstrual cyclicity.**

Follicle class	Source of variation			
	Levene's test for homogeneity of variance	Interaction	Diet	Menstrual cyclicity
Total	ns: $p = 0.6020$	ns: $p = 0.1831$	ns: $p = 0.708$	*** $p = 0.0007$
Primordial	ns: $p = 0.8660$	ns: $p = 0.1527$	ns: $p = 0.1339$	*** $p = 0.0006$
Tr. Primordial	ns: $p = 0.9522$	ns: $p = 0.2370$	ns: $p = 0.0864$	*** $p = 0.0003$
Primary	ns: $p = 0.1314$	ns: $p = 0.4250$	ns: $p = 0.2130$	*** $p = 0.0001$
Tr. Primary	ns: $p = 0.6412$	ns: $p = 0.4304$	ns: $p = 0.3076$	** $p = 0.0047$
Secondary	ns: $p = 0.7078$	ns: $p = 0.2215$	ns: $p = 0.2396$	*** $p = 0.0001$
Multilayer	ns: $p = 0.5879$	ns: $p = 0.1286$	ns: $p = 0.2682$	** $p = 0.0088$
Antral	ns: $p = 0.9515$	ns: $p = 0.9224$	ns: $p = 0.2219$	ns: $p = 0.976$
Multi-oocytic	ns: $p = 0.3765$	ns: $p = 0.9427$	ns: $p = 0.7696$	** $p = 0.0033$
Secondary with AMF	ns: $p = 0.7987$	ns: $p = 0.2253$	ns: $p = 0.1245$	ns: $p = 0.691$
Multilayer with AMF	ns: $p = 0.1052$	ns: $p = 0.6450$	ns: $p = 0.7790$	ns: $p = 0.2250$
Atretic Antral	ns: $p = 0.1153$	ns: $p = 0.6691$	ns: $p = 0.9526$	** $p = 0.0021$