LIST OF FIGURES

Fígure no.	Descríptíon	Page no.
1.	Photographs of normal diet (A) and high calorie diet (B) fed age matched female rats (F_0).	81
2.	Vertical bars showing mean body weight (A), body mass index (B), thoracic circumference (C) and abdominal circumference (D) in normal diet (ND) and high calorie diet (HCD) fed adult female rats (F_0).	82
3.	Vertical bars showing mean serum concentrations of glucose, cholesterol and triglyceride after 4 weeks (A) and 8 weeks (B) of feeding with normal diet (ND) or high calorie diet (HCD) to adult female rats (F_0).	83
4.	Vertical bars showing fertility parameters of normal diet (ND) and high calorie diet (HCD) fed mother rats (F_0).	84
5.	Photographs of male pups (F_1) on post-natal day 7 (A and B) and 13 (C and D) born to control and obese dams (F_0) .	85
6.	Photographs of male pups (F_1) on post-natal day 17 (A and B) and 24 (C and D) born to control and obese dams.	86
7.	Photographs of male rats (F_1) on post-natal day 36 (A and B) and post-natal day of preputial separation (C and D) born to control and obese dams	87
8.	Photographs of male rats (F_1) on post-natal day 100 (A and B) born to control and obese mothers.	88
9.	Vertical bars showing body weight (A), body mass index (B), thoracic circumference (C) and abdominal circumference (D) in male offspring (F_1) of normal diet and high calorie diet fed dams (F_0).	89
10.	Vertical bars showing serum concentrations of Glucose, cholesterol, triglyceride, LDL and HDL on post-natal day of preputial separation (A) and 100 (B) in male offspring (F_1) of normal and high calorie diet fed mother rats (F_0).	90
11.	Vertical bars showing relative weight of testes (A), and accessory organs on post natal day of preputial separation (B) and 100 (C) in male offspring (F ₁) of normal diet (ND) and high calorie diet (HCD) fed mother rats (F ₀).	91

12.	Cross sections of the testis showing the presence of only	
	spermatogonia in the seminiferous tubules of control (A) and	92
12	obese (B) pups (F_1) on post-natal day /.	
15.	cross sections of the testis showing the presence of spermatogonia and leptotgene spermatogytes in the	93
	seminiferous tubules of control (A) and obese (B) pups (F_1)	55
	on post-natal day 13.	
	1 5	
14.	Cross sections of the testis showing the presence of	
	spermatogonia, leptotgene spermatocytes and zygotene	94
	spermatocytes in the seminiterous tubules of control (A) and (B) spece (B) spece (E) or post potal day 17	
	obese (B) pups (Γ_1) on post-matal day 17	
15.	Cross sections of the testis showing the presence of	
	spermatogonia, leptotgene spermatocytes, zygotene	95
	spermatocytes and pachytene spermatocytes in the	
	seminiferous tubules of control (A) and obese (B) rats (F_1) on	
	post-natal day 24.	
16.	Cross sections of the testis showing the presence of	
	spermatogonia, leptotgene spermatocytes, zygotene	
	spermatocytes, pachytene spermatocytes and round	96
	spermatids in the seminiferous tubules of control (A) and	
	obese (B) rats (F_1) on post-natal day 36.	
17.	Cross sections of the testis showing the presence of	
	spermatogonia, zygotene spermatocytes, pachytene	
	spermatocytes, round spermatids and elongated spermatids in	97
	the seminiferous tubules of control (A) and obese (B) rats (F_1)	
	on post-natal day of preputial separation.	
18.	Cross sections of the testis showing the presence of	
	spermatogonia, zygotene spermatocytes, round spermatids	
	and elongated spermatid in the seminiferous tubules of	98
	control (A) and obese (B) rats (F1) on post-natal day 100.	
10	Vartical have showing mean number of some calls on post	
19.	natal day 7 (A) 13 (B) 17 (C) 24 (D) and 36 (F) in male	99-100
	offspring of normal diet and high calorie diet fed dams.	55 100
20.	Vertical bars showing mean number of germ cells on post	
	natal day of preputial separation (F) and 100 (G) in male	101
	OTSpring (F_1) of normal diet and high calorie diet fed dams (F_1)	101
	(1.0).	

21.	Vertical bars showing serum concentrations of insulin (A), leptin (B) and testosterone (C) in male offspring (F_1) of normal diet (ND) and high calorie diet (HCD) fed dams (F_0).	102
22.	Photographs of female pups (F_1) on post-natal day 1 (A and B) and day 4 (C and D) born to control and obese dams	103
23.	Photographs of female pups (F_1) on post-natal day 7(A and B) and day 15 (C and D) born to control and obese dams.	104
24.	Photographs of female rats (F_1) on post-natal day 21 (A and B) and day 28 (C and D) born to control and obese dams.	105
25.	Photographs of female pups (F_1) on post-natal day of vaginal opening (A and B) and day 15 (C and D) born to control and obese dams.	106
26.	Vertical bars showing body weight (A), body mass index (B), thoracic circumference (C) and abdominal circumference (D) in female offspring (F_1) of normal diet (control) and high calorie diet fed mother rats (F_0).	107
27.	Vertical bars showing serum concentrations of glucose, cholesterol, triglyceride, LDL and HDL on the day of vaginal opening (A) and mean post-natal day of vaginal opening in female offspring (F_1) of normal diet and high calorie diet fed mother rats (F_0).	108
28.	Cross sections of the ovary on post natal day 1 showing presence of naked oocytes in the ovaries of pups (F_1) born to control (A) and obese (B) dams; and primordial follicles on post natal day 4 in the ovaries of pups of control (C) and obese dams (D).	109
29.	Cross sections of the ovary showing presence of primary follicles (type 3a) on post natal day 7 in female rats (F_1) of control (A) and obese (B) dams (400 X) and pre-antral follicles of type 4 & 5a on post natal day 15 in female rats (F_1) of control (C) and obese dams	110
30.	Cross sections of the ovary showing presence of pre-antral follicles (Type 4) on post natal day 21 in female rats (F_1) of control (A) and obese dams (B)	111

31.	Cross sections of the ovary showing presence of pre-antral follicles and antral follicles on post natal day 28 in female offspring (F1) of control (A) and obese (B) dams.	112
32.	Cross sections of the ovary showing pre-antral, antral (type 6 & type 7) and Graffian follicles on post-natal day of vaginal opening in female rats (F_1) of control (A) and obese (B) dams.	113
33.	Vertical bars showing mean counts of oocytes and healthy follicles viz, primordial, primary, preantral and antral follicles on post-natal day $1(A)$, $4(B)$, $7(C)$, $15(D)$ $21(E)$, $28(F)$ and vaginal opening (G) in female offspring (F1) of normal diet and high calorie diet fed dams (F ₀).	114-116
34.	Vertical bars showing mean counts of atretic follicles viz, primary, preantral, antral and preovulatory follicles on post- natal day 7 (A), 15 (B), 21 (C), 28 (D) and vaginal opening (E) in female offspring (F_1) of normal diet (control) and high calorie diet fed mother rats.	117
35.	Vertical bars showing serum concentrations of insulin (A), leptin (B) and testosterone (C) in female offspring (F_1) of normal diet and high calorie diet fed mother rats (F_0).	118
36.	Vertical bars showing mean number of estrous cycles/2 months and length of estrous cycle in female offspring (F_1) of normal diet and high calorie diet fed mother rats (F_0).	119
37.	Vertical bars showing mean biometric parameters viz. body weight (A), body mass index (B), thoracic circumference (C) and abdominal circumference (D) of F_1 generation pregnant female rats fed with normal diet and high calorie diet.	120
38.	Vertical bars showing fertility parameters of F_1 generation female rats of normal diet and high calorie diet fed mother rats (F_0).	121