

## **Supplemental Material**

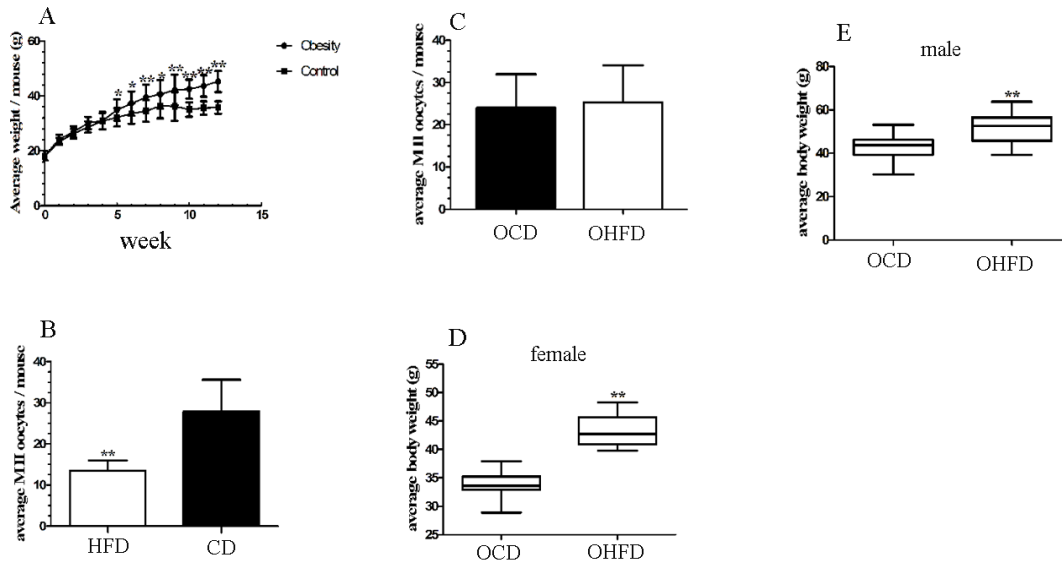
# **DNA Methylation in Oocytes and Liver of Female Mice and Their Offspring: Effects of High-Fat-Diet-Induced Obesity**

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**Supplemental Material, Figure S1. Average body weight and average number of MII oocytes per mouse.** (A) Average body weight per female mouse fed HFD or CD diet was measured each week and represented as mean  $\pm$  SD; (B) mice of HFD (n = 81) and CD (n = 83) were super-ovulated and MII oocytes were collected. Average number of MII oocytes per mouse was counted and represented as mean  $\pm$  SD. White bar, HFD; black bar, CD. (C) The number of MII oocytes per mouse in OHFD (n = 72) and OCD (n = 70) groups was evaluated and represented as mean  $\pm$  SD; White bar, OHFD; black bar, OCD. (D, E) Average body weight of 12 week-old offspring for female (n = 48) and male (n = 47) was evaluated and represented as mean  $\pm$  SD. \*P < 0.05, \*\*P < 0.01.

**Supplemental Material, Table S1.** Composition of D12492 and control diet (CD).

<b>Component</b>	<b>D12492</b>	<b>CD</b>
<b>Macronutrient (%)</b>		
Protein	26.2	27
Carbohydrate	26.3	48
Fat	34.9	4
<b>Ingredient (gm)</b>		
Casein	200	200
L-Cystine	3	3
Corn Starch	0	325
Maltodextrin	125	36
Sucrose	68.8	350
Cellulose	50	50
Soybean Oil	25	23
Lard	245	20
Mineral Mix	10	10
DiCalcium Phosphate	13	12
Calcium Carbonate	5.5	5.5
Potassium Citrate	16.5	16
Vitamin Mix	10	9.8
Choline Bitartrate	2	1.7
Total	773.8	1062

**Note: gm, gram.**

**Supplemental Material, Table S2.** Oligonucleotides utilized for PCR.

<b>Genes</b>	<b>Primer name</b>	<b>Primer sequence</b>
<i>H19</i>	Forward1	5'-GAGTATTTAGGAGGTATAAGAATT-3'
<i>H19</i>	Reverse1	5'-ATCAAAAACAACTAACATAAACCCCT-3'
<i>H19</i>	Forward2	5'-GTAAGGAGATTATGTTTATTTTTGG-3'
<i>H19</i>	Reverse2	5'-CCTCATTAAATCCCATAACTAT-3'
<i>Peg1</i>	Forward1	5'-GATTGTATATAAAAAGGTTAATGAG-3'
<i>Peg1</i>	Reverse1	5'-TCATTAACAAACACAAACCTCCTTAC-3'
<i>Peg1</i>	Forward2	5'-TTTTAGATTTTGAGGGTTTAGGTTG-3'
<i>Peg1</i>	Reverse2	5'-AATCCCTTAAAATCATCTTTCACAC-3'
<i>Peg3</i>	Forward1	5'-TGATAATAGTAGTTTGATTGGTAGGG-3'
<i>Peg3</i>	Reverse1	5'-TAATTCACACCTAAAACCCTAAAACC-3'
<i>Peg3</i>	Forward2	5'-TTTTGTAGAGGATTTTGATAAGGAGG-3'
<i>Peg3</i>	Reverse2	5'-AAATACCACTTAAATCCCTATCACC-3'
<i>Snrpn</i>	Forward1	5'-TATGTAATATGATATAGTTTAGAAATTAG-3'
<i>Snrpn</i>	Reverse1	5'-AATAAACCCAAATCTAAAATATTTAATC-3'
<i>Snrpn</i>	Forward2	5'-AATTTGTGTGATGTTTGTAATTATTTGG-3'
<i>Snrpn</i>	Reverse2	5'-ATAAAATACACTTTCACTACTAAAATCC-3'
<i>Igf2r</i>	Forward1	5'-TTA GTGGGGTATTTTTATTTGTATGG-3'
<i>Igf2r</i>	Reverse	5'-AAATATCCTAAAAATACAACTACAC-3'
<i>Igf2r</i>	Forward2	5'-GTGTGGTATTTTTATGTATAGTTAGG-3'
<i>Leptin</i>	Forward1	5'-TGTAAGAGTTGTCGGAAAAAGTAG-3'
<i>Leptin</i>	Reverse1	5'-CTATCCACATAACCTCCTTCTTACCTCA-3'
<i>Leptin</i>	Forward2	5'-TTGGAAGTATTATTTAAGGGATT-3'
<i>Leptin</i>	Reverse2	5'-TTATAACTACCCAATACCACTTAC-3'
<i>Ppar-α</i>	Forward1	5'-GGTATTTTGGTTATTTGTTG-3'
<i>Ppar-α</i>	Reverse1	5'-AACCCCTAAACACCTAAAACCTA-3'
<i>Ppar-α</i>	Forward2	5'-TTTTGGGATTTTAAAGATTAGATTT-3'
<i>Ppar-α</i>	Reverse2	5'-CTAAACACCTAAAACCTACACTC-3'
<i>IAP</i>	Forward1	5'-TTGATAGTTGTGTTTTAAGTGGTAAATAAA-3'
<i>IAP</i>	Reverse1	5'-AAAACACCACAAACCAAAATCTTCTAC-3'
<i>IAP</i>	Forward2	5'-TTGTGTTTTAAGTGGTAAATAAATAATTTG-3'
<i>IAP</i>	Reverse2	5'-CAAAAAAACACCACAAACCAAAAT-3'
<i>GADPH</i>	Forward	5'-TGACCTCAACTACATGGTCTACA-3'
<i>GADPH</i>	Reverse	5'-CTTCCATTCTCGGCCTTG-3'
<i>Leptin</i>	Forward	5'-GTGGCTTTGGTCCTATCTGTC-3'
<i>Leptin</i>	Reverse	5'-CGTGTGTGAAATGTCATTGATCC-3'
<i>Ppar-α</i>	Forward	5'-AACATCGAGTGTCGAATATGTGG-3'
<i>Ppar-α</i>	Reverse	5'-CCGAATAGTTCGCCGAAAGAA-3'

## Reference

Ge ZJ, Liang XW, Guo L, Liang QX, Luo SM, Wang YP, et al. 2013. Maternal diabetes causes alterations of DNA methylation statuses of some imprinted genes in murine oocytes. *Biol Reprod* 88:117.