Maternal inappropriate calcium intake aggravates dietary-induced obesity in male offspring by affecting the differentiation potential of mesenchymal stem cells

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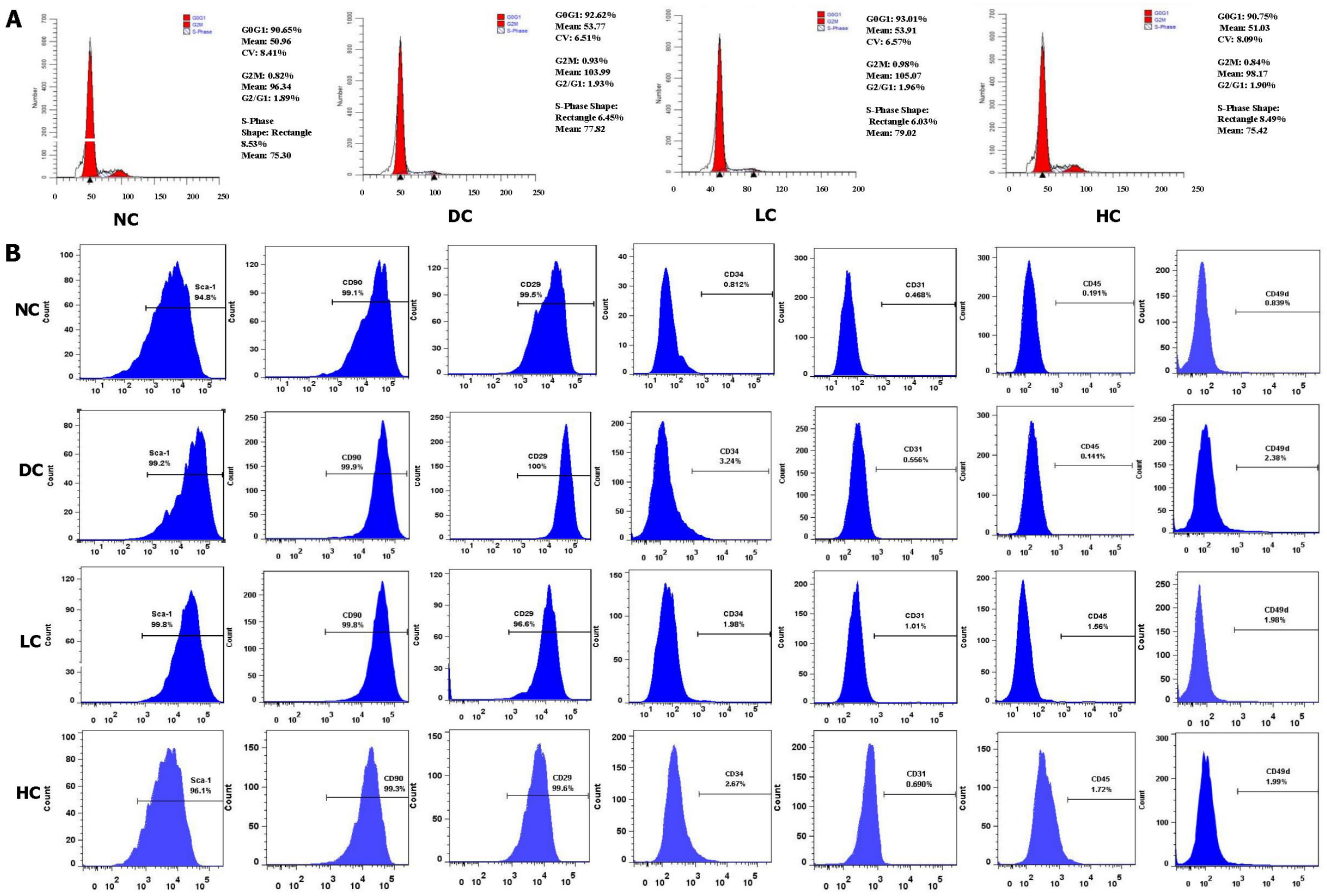
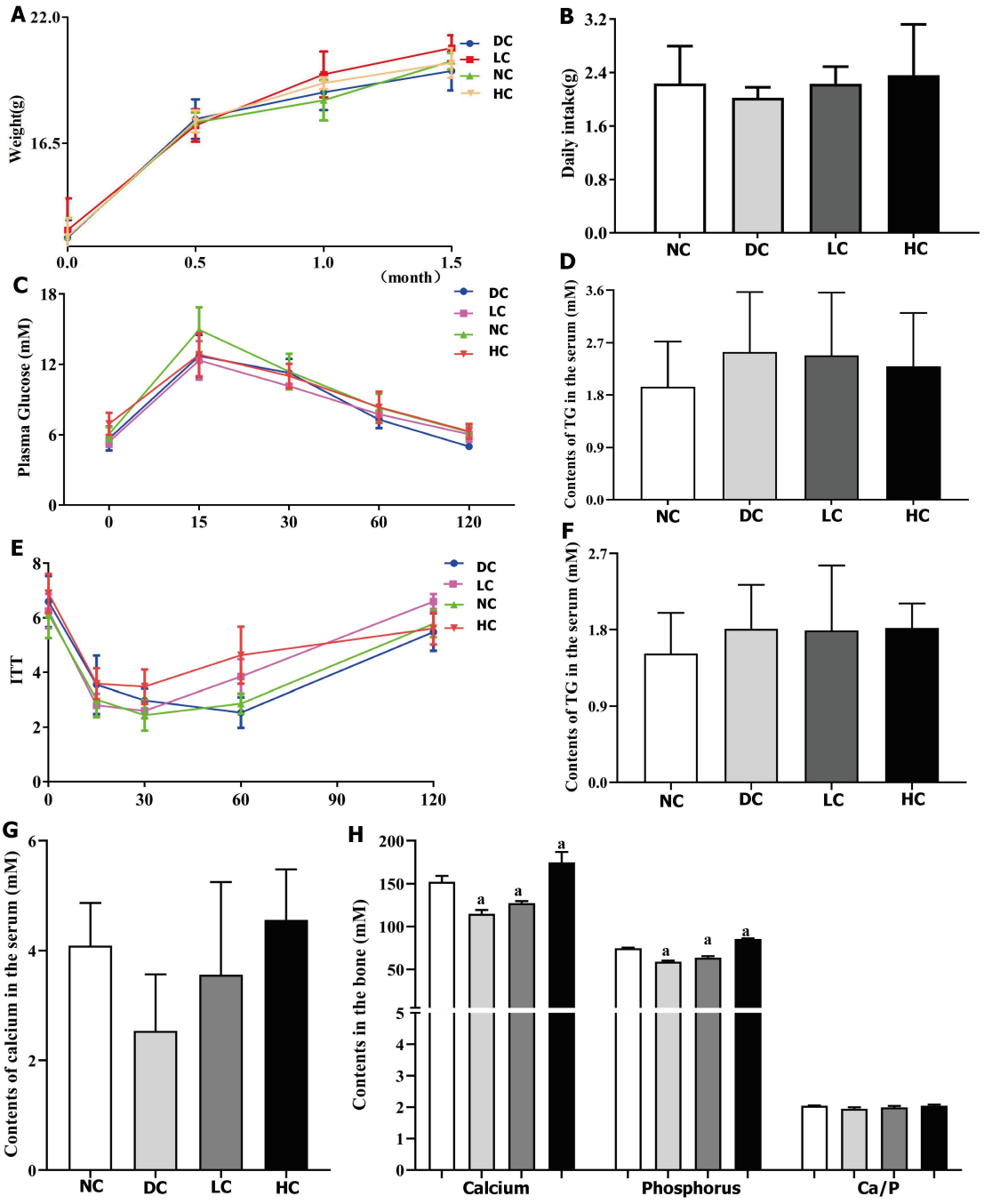


Supplementary Figure 1 Effects of different dietary calcium intake during the pregnancy and lactation on the cell cycles and antibody of bone marrow mesenchymal stem cells by the flow cytometry among the male offspring. A: Cell cycles; B: Cells wih

respective Sca-1 (+)、CD90 (+)、CD29 (+)、CD34 (+)、CD31 (+)、CD45 (+) and CD49d (+). NC: Normal-calcium reproductive diet; DC: Deficient-calcium reproductive diet; LC: Low-calcium reproductive diet; HC: High-calcium reproductive diet.



Supplementary Figure 2 Effects of different dietary calcium intake during the pregnancy and lactation on the maternal body weight and biochemical parameters in the serum. A: Body weight; B: Daily diet intake; C: Oral Glucose Tolerance Test (OGTT); D: Concentrations of triglyceride (TG); E: Insulin Glucose Tolerance Test (ITT); F: Concentrations of total cholesterol (TC); G: Concentrations of calcium; H: Contents of calcium, phosphorus and Ca/P in the bone. NC: Normal-calcium reproductive diet (0.70%); DC:

Deficient-calcium reproductive diet(0.05%); LC: Llow-calcium reproductive diet (0.25%); HC: High-calcium reproductive diet (1.20%). Compared to the NC group, $^{a}P < 0.05$.

Supplementary Table 1 The primer sequences of all target genes for RT-PCR

Gene	Forward primer(5′--3′)	Reverse primer(5′--3′)
PPARγ	TCGCTGATGCACTGCCTATG	GAGAGGTCCACAGAGCTGATT
C/EBPa	CAAGAACAGCAACGAGTACCG	GTCACTGGTCAACTCCAGCAC
LPL	TGAAAGCCGGAGAGACTCAG	AGTGTCAGCCAGACTTCTTCAG
Fabp4	ACTGTTCTCCAAGCTAGTGCT	GATGAAGACCCGGATGAAACG
Adiponectin	TGACGACACCAAAAGGGCTC	ACCTGCACAAGTTCCCTTGG
Resistin	CCTGCTAAGTCCTCTGCCAC	GGCTTCATCGATGGGACACA
Leptin	TGGCTTTGGTCCTATCTGTC	TCCTGGTGACAATGGTCTTG
Runx2	TGATGAGAACTACTCCGCC	GTGAAACTCTTGCCTCGTC
ALP	CCAACTCTTTTGTGCCAGAGA	GGCTACATTGGTGTTGAGCTTT T
COL1A1	GCTCCTCTTAGGGGCCACT	CCACGTCTCACCATTGGGG
Osteocalcin	GGAGTCTGTTCACTACCTTATTG	CTCTGTCTCTCTGACCTCAC
Osteopontin	AGCAAGAAACTCTTCCAAGCAA	GTGAGATTCGTCAGATTCATCC G
Wnt1	GGTTTCTACTACGTTGCTACTGG	GGAATCCGTCAACAGGTTCGT
Wnt5a	CAACTGGCAGGACTTTCTCAA	CATCTCCGATGCCGGAACT
Wnt10a	GCTCAACGCCAACACAGTG	CGAAAACCTCGGCTGAAGATG
Wnt10b	GAAGGGTAGTGGTGAGCAAGA	GGTTACAGCCACCCCATTCC
CTNNB1	ATGGAGCCGGACAGAAAAGC	CTTGCCACTCAGGGAAGGA
Gsk3β	TGGCAGCAAGGTAACCACAG	CGGTTCTTAAATCGCTTGTCCT G
Axin2	TGACTCTCCTTCCAGATCCCA	TGCCCACACTAGGCTGACA
TGF7L2	AACGAACACAGCGAATGTTTCC	CTCGGCATTTCTTAGGAGCG
36B4	AGATTCGGGATATGCTGTTGGC	TCGGGTCCTAGACCAGTGTTC