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Supplemental Material

Sex-Dependent Effects of Cadmium Exposure in Early Life on Gut Microbiota and Fat Accumulation in Mice

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Figure S2. Intestinal Bacteria changes at the genus level in 8-week-old female mice. The fecal microbiota in control and LDC female mice at 8 weeks of age were analyzed and the relative abundance of *Prevotella* (A), *Bifidobacterium* (B) and *Sphingomonas* (C) was shown.

Figure S3. Effects of LDC on body compositions in male mice with microbiota removal. (A) Study design: After weaning (3 weeks old), control or LDC male mice (control, n=6; LDC, n=4) were treated with ciprofloxacin (0.2 g/L) and metronidazole (1 g/L) in their drinking water. (B-D) Body composition in the control and LDC mice with antibiotics treatment was measured by NMR at 16 weeks of age. **, $p < 0.01$ compared with the control group.

Table S1. The GO terms of biological process enriched by up-regulated differential genes in LDC male mice.

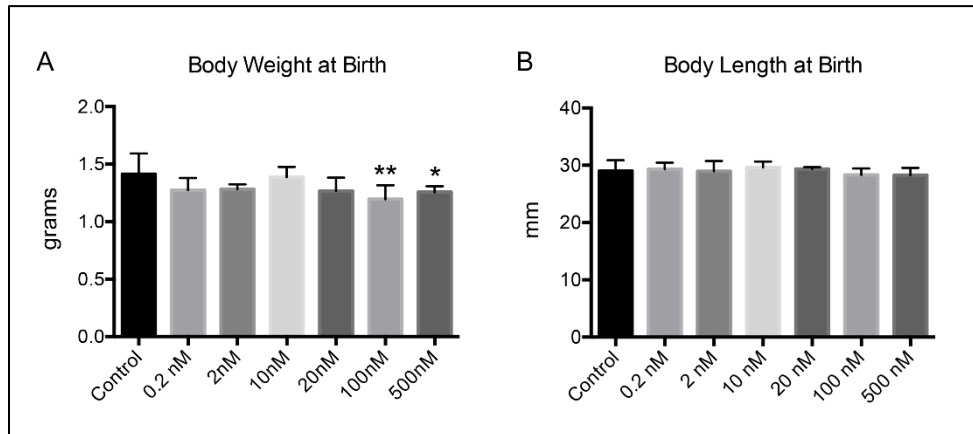


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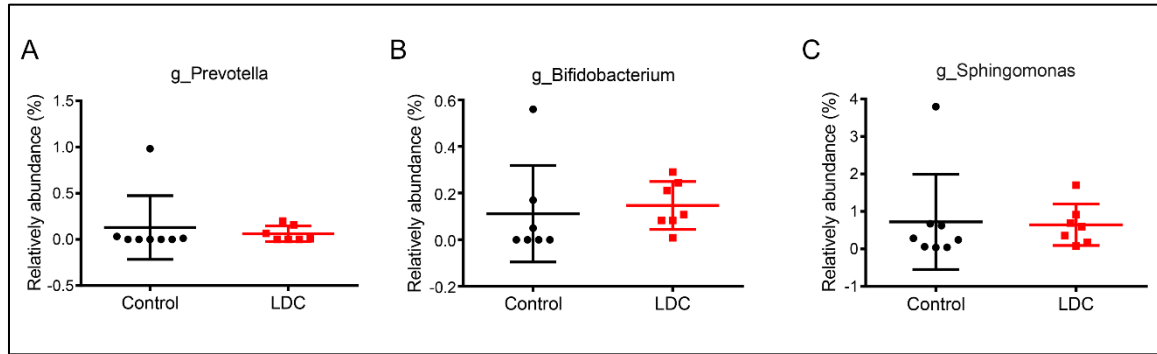


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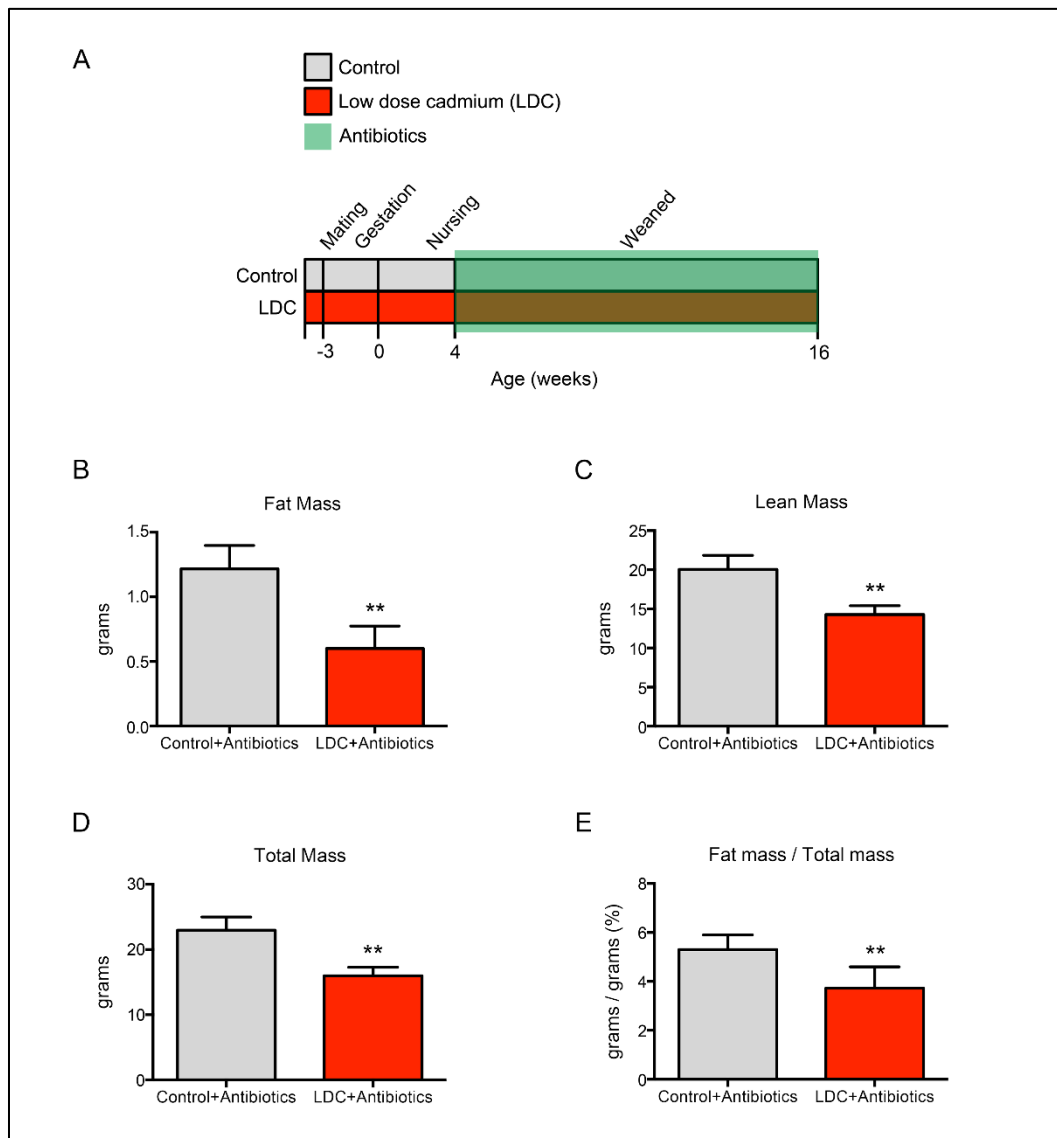


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(A) Study design: After weaning (3 weeks old), control or LDC male mice (control, n=6; LDC, n=4) were treated with ciprofloxacin (0.2 g/L) and metronidazole (1 g/L) in their drinking water. (B-D) Body composition in the control and LDC mice with antibiotics treatment was measured by NMR at 16 weeks of age. **, $p < 0.01$ compared with the control group. (E) Body fat percentage in control and LDC mice with antibiotics treatment was measured. **, $p < 0.01$ compared with the control group.

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GO-ID	P-value	FDR	Description
9987	2.49E-06	1.70E-03	cellular process
8152	1.85E-05	6.34E-03	metabolic process
6631	7.03E-05	1.50E-02	fatty acid metabolic process
61180	8.73E-05	1.50E-02	mammary gland epithelium development
44237	1.63E-04	2.23E-02	cellular metabolic process
60736	3.46E-04	3.96E-02	prostate gland growth
32787	4.34E-04	4.15E-02	monocarboxylic acid metabolic process
60749	6.75E-04	4.15E-02	mammary gland alveolus development
6629	7.45E-04	4.15E-02	lipid metabolic process
44238	8.11E-04	4.15E-02	primary metabolic process
19752	8.38E-04	4.15E-02	carboxylic acid metabolic process
43436	8.38E-04	4.15E-02	oxoacid metabolic process
30879	8.43E-04	4.15E-02	mammary gland development
6082	8.47E-04	4.15E-02	organic acid metabolic process
42180	9.62E-04	4.40E-02	cellular ketone metabolic process
38	1.11E-03	4.60E-02	very long-chain fatty acid metabolic process
6637	1.21E-03	4.60E-02	acyl-CoA metabolic process
35383	1.21E-03	4.60E-02	thioester metabolic process
60560	1.31E-03	4.73E-02	developmental growth involved in morphogenesis