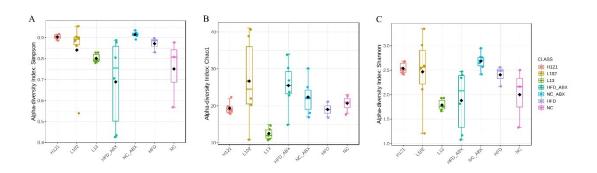
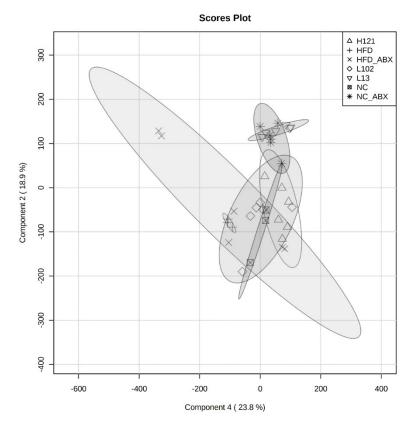
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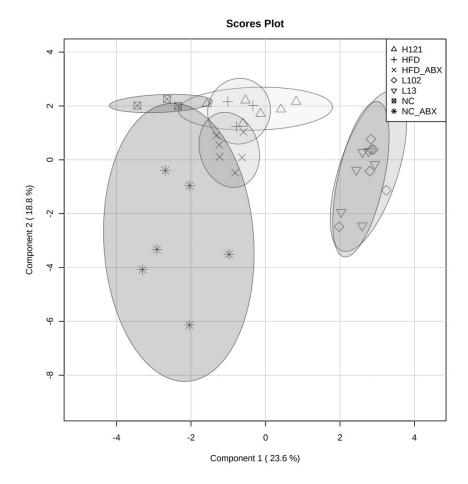
1 Food & Function 2 3 Supplementary materials for 4 The effects of pectin on the gut microbiota and serum metabolites in mice 5 fed a high fat diet and exposed to low-dose antibiotics 6 7 Qianhuang Xiao, Wenqi Huang, Quanyong Wu, Hedi Xu, Yanli Zhang, Jingrui Yang, Shuigen Bian, 8 Huizi Tan\*, Shaoping Nie 9 10 (State Key Laboratory of Food Science and Technology, China-Canada Joint Laboratory of Food 11 Science and Technology (Nanchang), Key Laboratory of Bioactive Polysaccharides of Jiangxi 12 Province, Nanchang University, Nanchang 330047, China) 13 \* Corresponding author: huizi.tan@ncu.edu.cn (H. Tan) 14 15 16 17 The Supplementary materials includes: 18 **Supplemental Fig 1.** The effects of pectin with various degrees of esterification on the  $\alpha$ -diversity 19 of gut microbiota 20 **Supplemental Fig 2.** The effects of pectin with various degrees of esterification on the  $\beta$ -diversity 21 of gut microbiota based on sparse partial least squares discriminant analysis (sPLS-DA). 22 Supplemental Fig 3. The sparse partial least squares discriminant analysis (sPLS-DA) of the serum 23 metabolites of mice in each group. 24 Supplemental Fig 4. The correlation analysis of the gut microbiome, fasting blood glucose, and 25 the expression of hepatic SOD and colonic occludin of mice in each group. 26



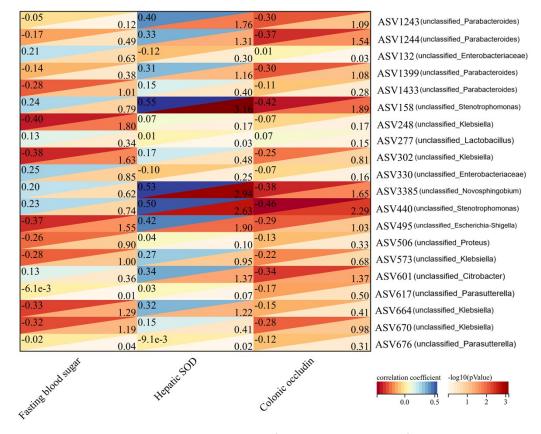
**Supplemental Fig 1.** The effects of pectin with various degrees of esterification on the  $\alpha$ -diversity of gut microbiota



**Supplemental Fig 2.** The effects of pectin with various degrees of esterification on the  $\beta$ -diversity of gut microbiota based on sparse partial least squares discriminant analysis (sPLS-DA).



36 Supplemental Fig 3. The sparse partial least squares discriminant analysis (sPLS-DA) of the serum37 metabolites of mice in each group.



Supplemental Fig 4. The correlation analysis of the gut microbiome, fasting blood glucose, and
the expression of hepatic SOD and colonic occludin of mice in each group.