

Manuscript Title: Short-term L-arabinose administration alleviates MASLD by remodeling gut microbiota and activating hepatic ATF5-dependent mitochondrial unfolded protein response

Manuscript Author:

Heng Zhang^{1,2,3,4,#}, Ruhan Chen^{1,2,3,4,#}, Weiwei Zhang^{1,2,3,4}, Jie Ning⁶, Yao Wang^{1,2,3,4}, Yunxiao Li^{1,2,3,4}, Meng Zhao⁷, Dong Lin⁸, Xiaolei Wang^{1,2,3,4,5}

¹Endocrine and Metabolic Diseases Hospital of Shandong First Medical University, Shandong First Medical University & Shandong Academy of Medical Sciences, Jinan 250013, Shandong, China.

²Shandong Institute of Endocrine & Metabolic Diseases, Shandong First Medical University & Shandong Academy of Medical Sciences, Jinan 250013, Shandong, China.

³Shandong Provincial Key Medical and Health Laboratory of Translational Medicine in Endocrine and Metabolic Diseases, Jinan 250013, Shandong, China.

⁴Jinan Key Laboratory of Translational Medicine on Metabolic Diseases, Jinan 250013, Shandong, China.

⁵Shandong University of Traditional Chinese Medicine, Jinan 250355, Shandong, China.

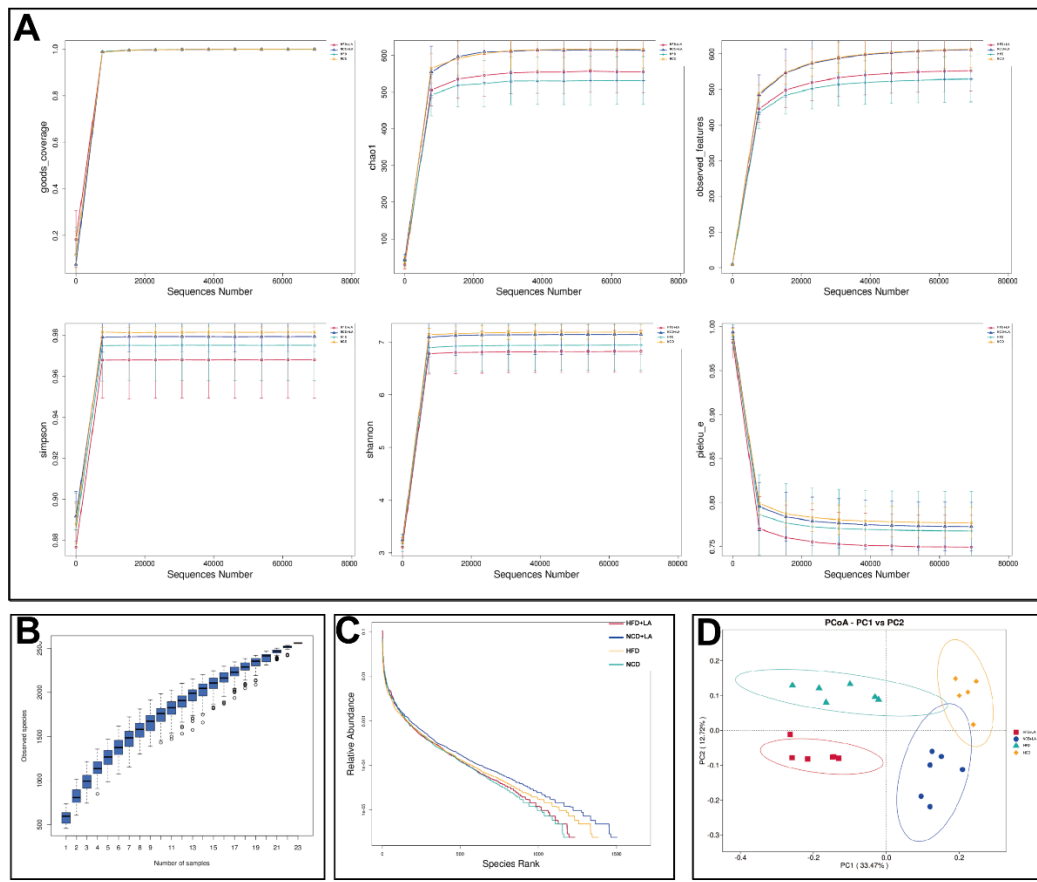
⁶Affiliated Hospital of Shandong University of Traditional Chinese Medicine, Jinan 250355, Shandong, China.

⁷Department of Endocrinology, Shandong Provincial Hospital Affiliated to Shandong First Medical University, Jinan, 250021, China.

⁸School of Basic Medicine, Shandong First Medical University and Shandong Academy of Medical Sciences, Jinan 250000, Shandong, China.

[#]These authors contributed equally to this work.

Correspondence to: Dr. Dong Lin. School of Basic Medicine, Shandong First Medical University and Shandong Academy of Medical Sciences, Jinan 250000, Shandong, China. E-mail: lindong@sdfum.edu.cn; Dr. Xiaolei Wang. Endocrine and Metabolic Diseases Hospital of Shandong First Medical University, Shandong First Medical University & Shandong Academy of Medical Sciences, Jinan 250013, Shandong, China. E-mail: xiaolei.wang@sdfmu.edu.cn



Supplementary Figure 1. A: Goods-coverage, chao1, observed-features, simpson, shannon and pielou's e related dilution curve of gut microbiota in mice; B: Alpha diversity species cumulative box chart of gut microbiota in mice; C: Alpha analysis level clustering curve of gut microbiota in mice; D: Principal Co-ordinates analysis of gut microbiota in mice.