

# **Targeting Non-Alcoholic Fatty Liver Disease with Hawthorn Ethanol Extract (HEE): A Comprehensive Examination of Hepatic Lipid Reduction and Gut Microbiota Modulation**

Tianyu Wang<sup>1</sup>, Dawei Wang<sup>2</sup>, Yinghui Ding<sup>1</sup>, He Xu<sup>1</sup>, Yue Sun<sup>1</sup>, Jumin Hou<sup>1</sup>, Yanrong Zhang<sup>2\*</sup>

<sup>1</sup> → College of Food Science and Engineering, Changchun University; Changchun 130022, China. wangty84@ccu.edu.cn (T.W.); 220302116@ccu.edu.cn(Y.D.);

220302110@ccu.edu.cn(H.X.); 220301083@ccu.edu.cn(Y.S.); houjm@ccu.edu.cn(J.H.)

<sup>2</sup> → School of Food Science and Engineering, Jilin Agricultural University; Changchun 130118, China. wangdawei@jlau.edu.cn(D.W.)

**\*Corresponding author.**

E-mail address: zhangyanrong@jlau.edu.cn(Y.Z).

**Table S1. Composition of diets\***

<b>Ingredient (g/kg)</b>	<b>HFD (TP 23300)</b>	<b>LFD (TP 23302)</b>
Casein	259	189
Maltodextrin	166	108
Sucrose	91	67
Corn starch	0	497
Soybean oil	33	21
Lard	313	21
Cellulose	67	48
Mineral mix (M1020)	52	36
Vitamin mix (V1010)	13	9
L-cystine	3	2
Choline bitartrate	3	2
Tertiary butylhydroquinone (TBHQ)	0.067	0.067
Total	1000.067	1000.067

\*Diets were purchased from TROPHIC Animal Feed High-tech Co., Ltd. (Nantong, China), and information on diet composition was provided by the company.

**Table S2. Primer sequences used for real-time quantitative PCR**

Gene	Forward (5'-3')	Reverse (5'-3')	PrimerBank ID
FASN	GGAGGTGGTGATAGCCGGTAT	TGGGTAATCCATAGAGCCCAG	30911099a1
MGL	CGGACTTCCAAGTTTTTGTGAGA	GCAGCCACTAGGATGGAGATG	6754690a1
HSL	CCAGCCTGAGGGCTTACTG	CTCCATTGACTGTGACATCTCG	26325924a1
ATGL	GGATGGCGGCATTTTCAGACA	CAAAGGGTTGGGTTGGTTCAG	26327465a1
GAPDH	AGGTCGGTGTGAACGGATTTG	TGTAGACCATGTAGTTGAGGTCA	6679937a1

