

Supplemental Figures

Targeted Metabolomics Reveals Abnormal Hepatic Energy Metabolism by Depletion of β -Carotene Oxygenase 2 in Mice

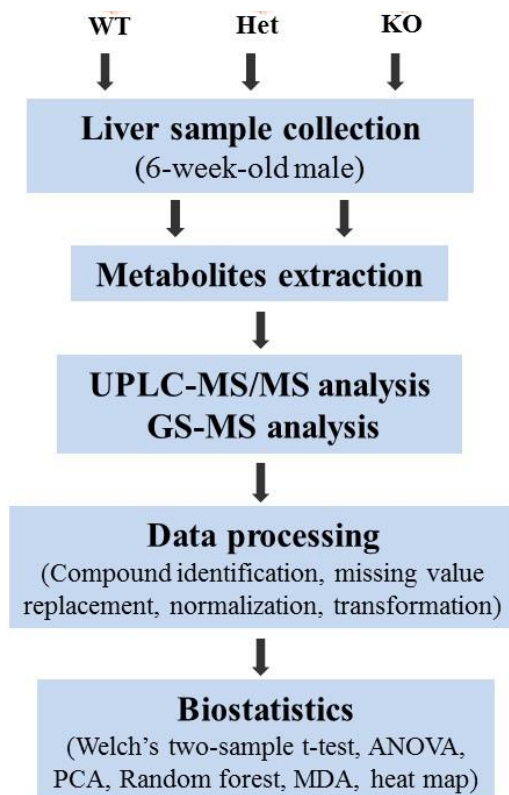
Lei Wu, Xin Guo, Yi Lyu, Stephen Clarke, Edralin Lucas, Brenda J Smith, Deana Hildebrand, Weiqun Wang, Denis Medeiros, Xinchun Shen, Dingbo Lin

Department of Nutritional Sciences, Oklahoma State University, Stillwater, Oklahoma 74078, USA

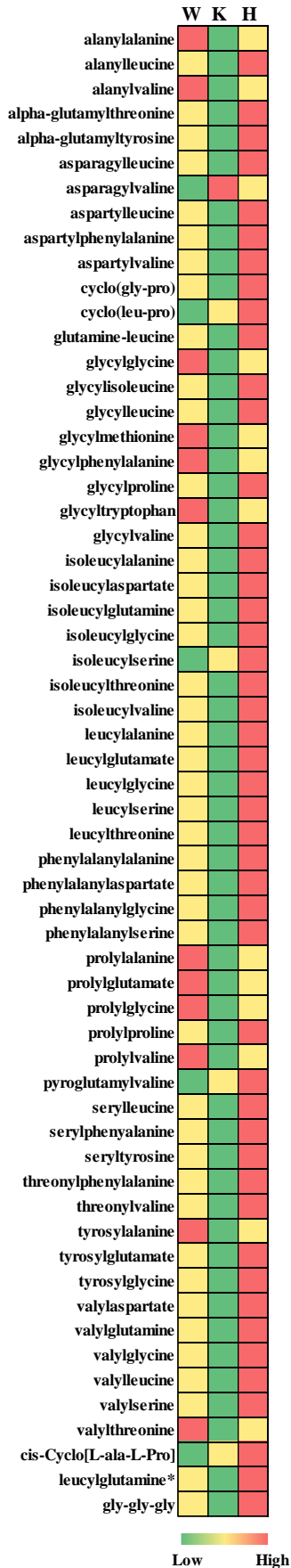
Supplemental Table 1 Summary of the numbers of metabolites identified with significant changes in the livers of wild type (WT), β -carotene oxygenase 2 (BCO2) heterozygous, and/or BCO2 knockout (KO) mice

Statistical Comparisons			
Welch's Two-Sample <i>t</i> -Test	$\frac{\text{KO}}{\text{WT}}$	$\frac{\text{KO}}{\text{Het}}$	$\frac{\text{Het}}{\text{WT}}$
Total Metabolites ($p \leq 0.05$, $\uparrow\downarrow$)	250 (108 142)	250 (103 147)	99 (65 34)
Total Metabolites ($0.05 < p < 0.10$, $\uparrow\downarrow$)	36 (18 18)	42 (10 32)	45 (30 15)

The numbers in red show metabolites with increased contents, while the numbers in green indicate metabolites with decreased contents



Supplemental Figure 1. Summary of the experimental design. Liver metabolites from 6-week-old male wild type (WT), β -carotene oxygenase 2 (BCO2) heterozygous (Het) and BCO2 knockout (KO) mice were subjected to UPLC-MS/MS and GS-MS analysis followed by data processing and biostatistics analysis (n = 6).



Supplemental Figure 2. Heat map of metabolites associated with peptides metabolism. Liver metabolites from 6-week-old male WT, Het and KO mice were subjected to UPLC-MS/MS and GS-MS analysis followed by data processing and biostatistics analysis (n = 6). W, wild type; H, β -carotene oxygenase 2 (BCO2) heterozygous mice; K, BCO2 knockout mice

Low High