## Centers of Advanced Medicine Stable Isotope Medical Application Center

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## **General Summary**

The diabetes model Wistar Fatty rat was used to accumulate data up to 40 weeks of age using the fasting <sup>13</sup>C-glucose breath test (FGBT) on the onset of liver insulin resistance. For clinical research, we promoted practical use of (1) liver insulin resistance evaluation by FGBT in cardiovascular diseases and diabetes mellitus, and (2) <sup>13</sup>C breath test for evaluation of gastric emptying capacity (simple method).

## Publications

Park JH, Masaki T, Mezaki Y, Yokoyama H, Nakamura M, Maehashi H, Fujimi TJ<sup>1</sup>, Gouraud SS<sup>2</sup>, Nagatsuma K, Nakagomi M<sup>3</sup>, Kimura N, Matsuura T (<sup>1</sup>Bunkyo Univ, <sup>2</sup>Ochanomizu Univ, <sup>3</sup>FDSC). Alpha-1 antichymotrypsin is involved in astrocyte injury in concert with arginine-vasopressin during the development of acute hepatic encephalopathy. *PLoS One.* 2017; **12**: e0189346. eCollection 2017.

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