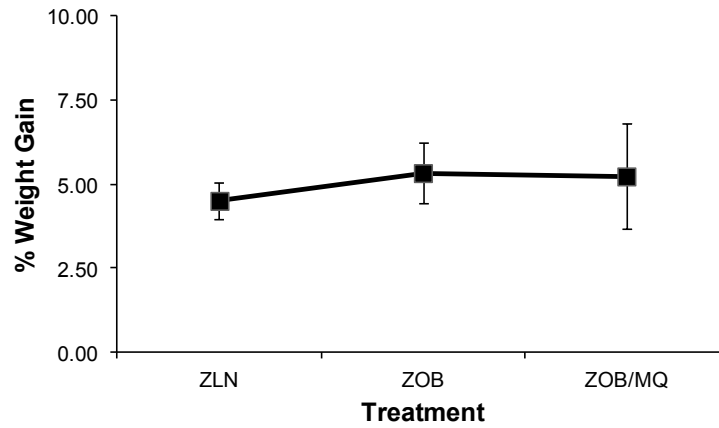
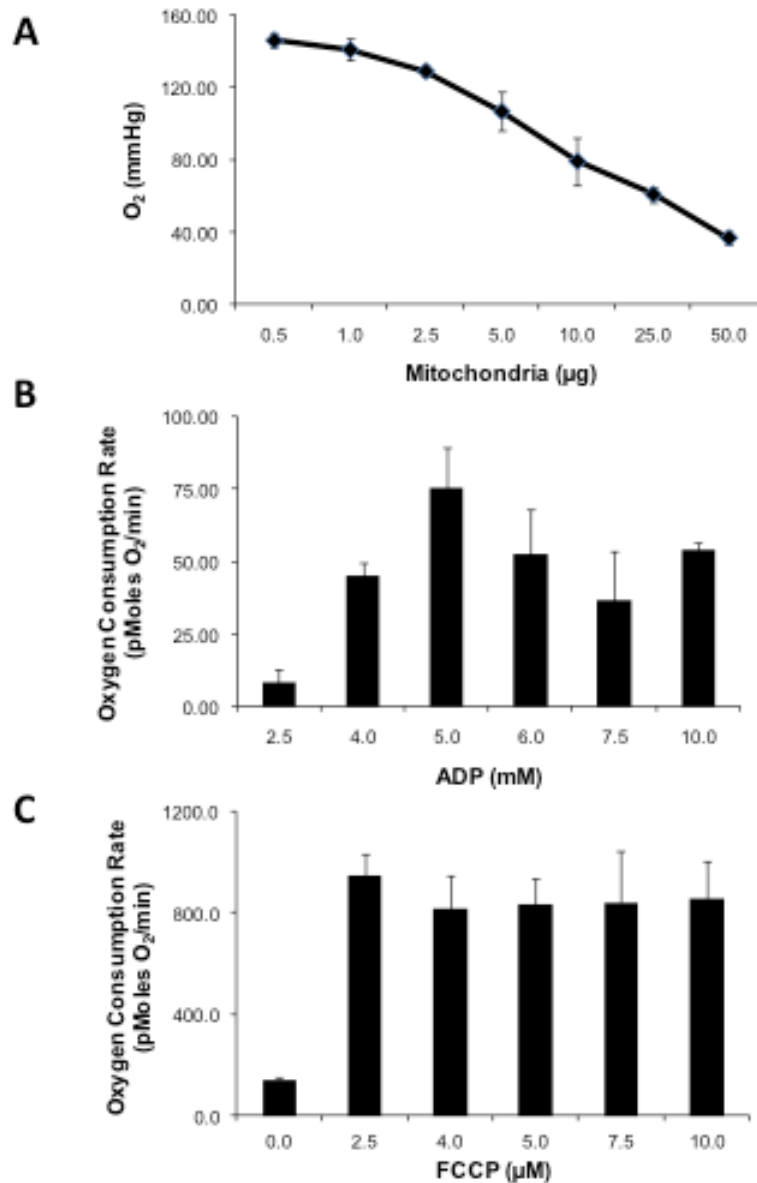


Figure I



Percent body weight change of ZOF rats relative to day-0 with 50 μ M MQ supplemented in drinking water over 10 to 14 days. Lean, ZOF and ZOF+MQ rats exhibited steady weight gain of $\sim 4.5 \pm 0.4$ %, $\sim 5.3 \pm 0.9$ % and $\sim 5.2 \pm 1.6$ %, respectively. Note that MQ treatment to ZOF did not significantly alter the weight gain profile.

Figure II



Titration of mitochondria amount, ADP and FCCP concentrations. To determine the optimal amount of mitochondria for respiration studies, 0.5, 1.0, 2.5, 5.0, 10.0, 25.0 and 50.0 μg mitochondria/well were tested, respectively. As shown in Supplementary Figure 2A, 0.5 and 1.0 μg mitochondria per well showed no appreciable deficit in oxygen tension in the well (~ 150 to 160 mmHg O_2) over the course of the experiment, suggesting that OCR does not exceed the ability of the analyzer to replenish oxygen tension after completion of measurement for each cycle ($n=2$ lean rats; 5 to 6 wells/condition/rat). However, 2.5 μg mitochondria/well (state 2 OCR: ~ 400 pMoles/min) was chosen for all the following experiments due to greater experimental resolution. Next, various concentrations of ADP and FCCP were used to ensure sustainable state 3 and maximal respiration rates. In this study, 5 mM ADP and 4 μM FCCP were used in the following experiments ($n=2$ lean rats; 5 to 6 wells/condition/rat; Supplementary Figure 2B and 2C).