

Supplementary Figure Captions

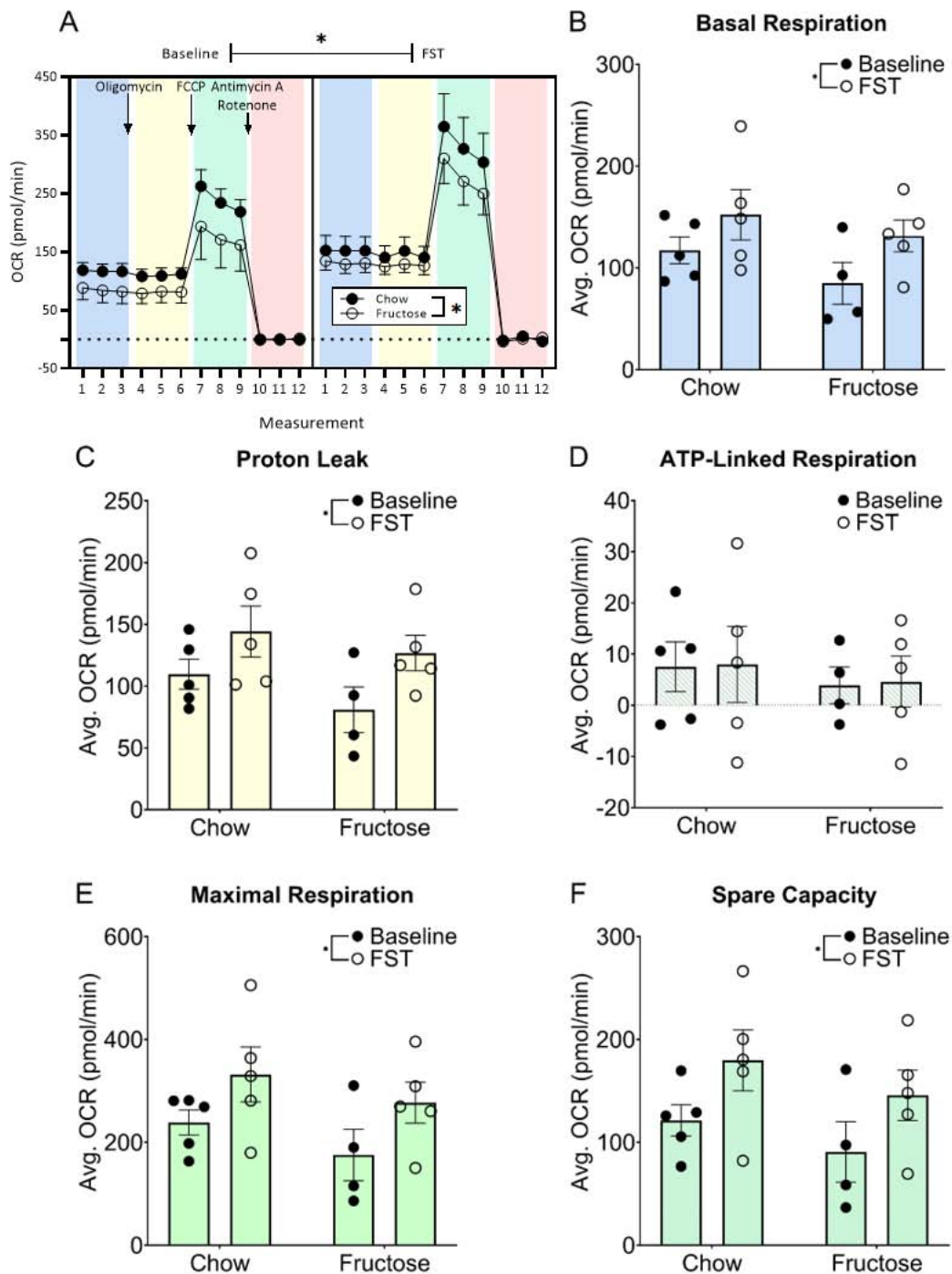
Figure 1. *Diet did not alter mitochondrial function in males but acute stress exposure did.*

Mitochondrial function was determined by analyzing the oxygen consumption rate (OCR) separately following each drug administration during the cell mito stress test. All three measurements take after each drug administration were averaged together. In males, baseline respiration (pre-drug administration) was increased following exposure to the acute forced swim stressor ($F_{(1,15)}=4.566$; $p=0.0495$) regardless of diet ($F_{(1,15)}=1.954$; $p=0.1825$). Following administration of oligomycin, proton leak was altered by exposure to acute stress ($F_{(1,15)}=5.792$; $p=0.0294$) but was not impacted by diet ($F_{(1,15)}=1.931$; $p=0.1849$). ATP-linked respiration was calculated by subtracting the averaged proton leak OCR from baseline OCR. Neither diet ($F_{(1,15)}=0.3829$; $p=0.5454$) nor exposure to acute stress ($F_{(1,15)}=0.01107$; $p=0.9176$) altered ATP-linked respiration. Maximal respiration was calculated following administration of antimycin A and Rotenone. Acute stress increased maximal respiration ($F_{(1,15)}=5.143$; $p=0.0385$) regardless of diet ($F_{(1,15)}=1.878$; $p=0.1907$) in males. Spare respiratory capacity was calculated by subtracting the basal respiration from maximal respiration rates. Males exposed to acute stress had increase spare capacity compared to non-stressed males ($F_{(1,15)}=5.089$; $p=0.0394$) while diet did not affect spare capacity in males.

Figure 2. *Diet and acute stress exposure did not alter mitochondrial function in females.* Basal respiration was not altered by diet ($F_{(1,13)}=0.2407$; $p=0.6319$) or stress exposure ($F_{(1,13)}=0.04694$; $p=0.8318$). Proton leak was not altered following high fructose diet ($F_{(1,13)}=0.1651$; $p=0.6911$) or stress exposure ($F_{(1,13)}=0.1458$; $p=0.7088$). ATP-linked respiration was not altered by diet

($F_{(1,13)}=0.4194$; $p=0.5285$) or acute stress exposure ($F_{(1,13)}=0.1900$; $p=0.6701$). Maximal Respiration was not altered following diet ($F_{(1,13)}=1.578$; $p=0.2312$) or acute stress exposure ($F_{(1,13)}=0.08165$; $p=0.7796$). Finally, spare capacity was not changed by diet ($F_{(1,13)}=3.957$; $p=0.0681$) or acute stress exposure in females ($F_{(1,13)}=0.1133$; $p=0.7418$).

Males



Females

