**Supplemental Table S1: Adipose Tissue Depot Mass at Termination.** All masses are reported in grams. Portions of recovered excised depots were significantly smaller than respective non-excided depots from Sham Controls. This indicates no significant regrowth of excised adipose tissue. Visceral adipose tissue was higher in Uni IngX mice on CHOW diet for 5 weeks. Overall, there was no adipose tissue compensation in non-excised depots.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Ctrl** | **Uni IngX** | **Bi IngX** | **All** | **p-value** |
| **Chow** |  |  |  |  |  |  |
| **5 wks** | N | 10 | 10 | 10 | 10 |  |
| EWAT | 0.38 ± 0.03 | 0.48 ± 0.05 | 0.46 ± 0.05 | 0.43 ± 0.03 | 0.36 |
| IWAT | 0.25 ± 0.02a | 0.16 ± 0.02b | 0.04 ± 0.01c | 0.06 ± 0.01c | <0.0001 |
| VWAT | 0.16 ± 0.01a | 0.23 ± 0.03b | 0.20 ± 0.02a,b | 0.17 ± 0.01a,b | 0.049 |
| BAT | 0.14 ± 0.01 | 0.16 ± 0.01 | 0.15 ± 0.01 | 0.15 ± 0.01 | 0.69 |
| DWAT | 0.25 ± 0.02a | 0.29 ± 0.02a | 0.26 ± 0.03a | 0.08 ± 0.02b | <0.0001 |
| PWAT | 0.13 ± 0.01 | 0.18 ± 0.02 | 0.18 ± 0.03 | 0.16 ± 0.02 | 0.26 |
| **HFD** |  |  |  |  |  |  |
| **5 wks** | N | 10 | 10 | 10 | 10 |  |
| EWAT | 1.60 ± 0.19 | 1.73 ± 0.07 | 1.74 ± 0.18 | 1.40 ± 0.14 | 0.38 |
| IWAT | 1.03 ± 0.12a | 0.70 ± 0.05b | 0.40 ± 0.08c | 0.28 ± 0.05c | <0.0001 |
| VWAT | 0.68 ± 0.08 | 0.77 ± 0.07 | 0.80 ± 0.13 | 0.62 ± 0.07 | 0.50 |
| BAT | 0.32 ± 0.03 | 0.43 ± 0.04 | 0.39 ± 0.06 | 0.40 ± 0.04 | 0.37 |
| DWAT | 0.98 ± 0.11a | 1.18 ± 0.10a | 1.17 ± 0.14a | 0.47 ± 0.07b | <0.0001 |
| PWAT | 0.75 ± 0.09 | 0.87 ± 0.05 | 0.88 ± 0.10 | 0.70 ± 0.08 | 0.33 |
| **13 wks** | N | 10 | 9 | 9 | 9 |  |
| EWAT | 2.46 ± 0.17 | 2.36 ± 0.10 | 2.39 ± 0.06 | 2.31 ± 0.10 | 0.82 |
| IWAT | 1.41 ± 0.07a | 0.91 ± 0.09b | 0.32 ± 0.04c | 0.50 ± 0.17c | <0.0001 |
| VWAT | 1.02 ± 0.07 | 0.87 ± 0.08 | 0.93 ± 0.06 | 0.88 ± 0.06 | 0.39 |
| BAT | 0.51 ± 0.03 | 0.45 ± 0.06 | 0.46 ± 0.03 | 0.48 ± 0.04 | 0.76 |
| DWAT | 1.26 ± 0.08a | 1.16 ± 0.09a | 1.22 ± 0.08a | 0.57 ± 0.08b | <0.0001 |
| PWAT | 1.08 ± 0.06 | 1.00 ± 0.09 | 1.01 ± 0.07 | 0.84 ± 0.11 | 0.25 |

EWAT=epididymal white adipose tissue, IWAT=inguinal white adipose tissue, VWAT=visceral white adipose tissue, BAT=brown adipose tissue, DWAT=dorsal white adipose tissue, PWAT=perirenal white adipose tissue

Values with a different letter are significantly different from each other (p ≤ 0.05)

**Supplemental Figure S1: 13 Week HFD Glucose and Insulin Response to GTT.**