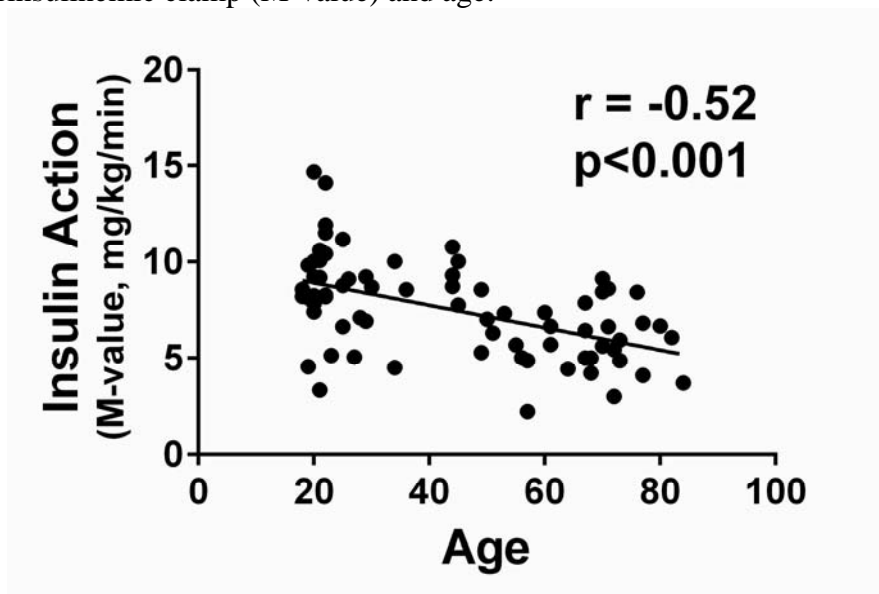


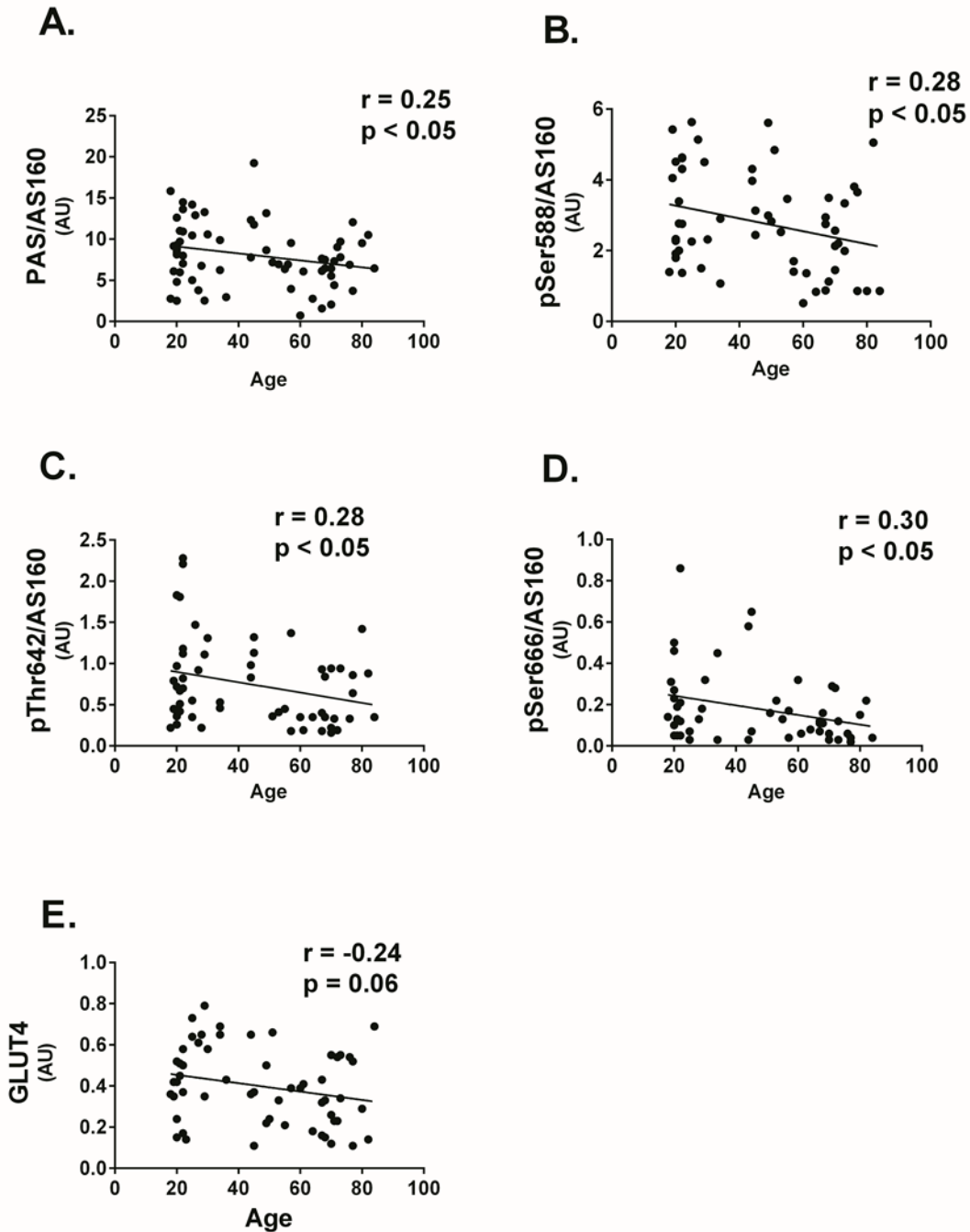
SUPPLEMENTARY DATA

Supplementary Figure 1. Relationship between whole-body insulin action obtained during a euglycemic-hyperinsulinemic clamp (M-value) and age.



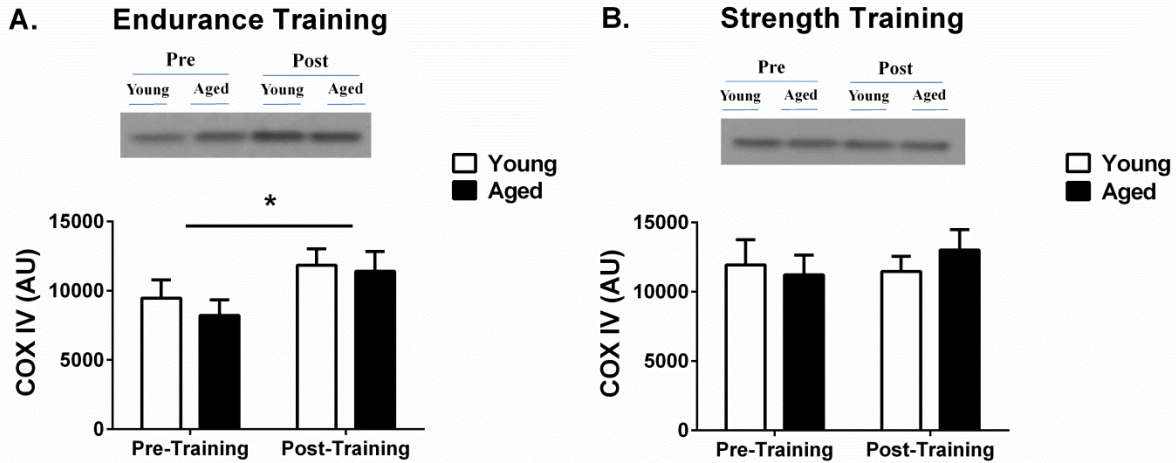
SUPPLEMENTARY DATA

Supplementary Figure 2. Relationships between insulin-stimulated phosphorylation levels of skeletal muscle AS160 PAS (n=67) (A), Ser-588 (n=56) (B), Thr-642 (n=57) (C), Ser-666 (n=52) (D) and GLUT4 protein content (n=58) (E) with age. Values are expressed in arbitrary units (AU).

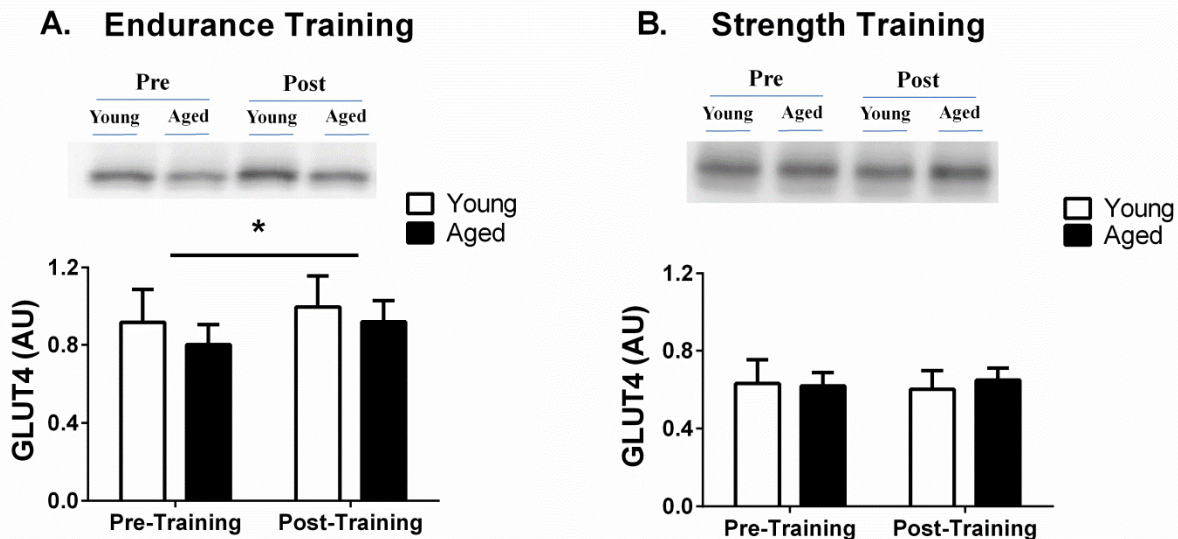


SUPPLEMENTARY DATA

Supplementary Figure 3. Skeletal muscle COX IV protein content before and after 12 weeks of endurance training in young (n=8, age: 24.4 ± 1.6 y, range: 18-34 y, white bars) and aged (n=8, age: 69.0 ± 2.2 y, range: 57-84 y, black bars) individuals (A) or strength training (B) in young (n=9, age: 23.6 ± 1.5 y, range: 20-35 y, white bars) and aged (n=9, 69.3 ± 2.7 y, range: 55-82 y, black bars) individuals. Values are in arbitrary units (AU). Data are means ± SEM. *p<0.01 vs pre-training.



Supplementary Figure 4. Skeletal muscle GLUT4 protein content before and after 12 weeks of endurance training in young (n=9, age: 24.4 ± 1.6 y, range: 18-34 y, white bars) and aged (n=11, age: 69.0 ± 2.2 y, range: 57-84 y, black bars) individuals (A) or strength training (B) in young (n=10, age: 23.6 ± 1.5 y, range: 20-35 y, white bars) and aged (n=11, 69.3 ± 2.7 y, range: 55-82 y, black bars) individuals. Values are in arbitrary units (AU). Line above bars represents main effect for training. Data are means ± SEM. *p<0.01 vs pre-training.



SUPPLEMENTARY DATA

Supplementary Figure 5. Phosphorylation levels of skeletal muscle Akt2 Ser-473 in response to a euglycemic-hyperinsulinemic clamp before and after 12 weeks of endurance training in young (n=8, age: 24.4 ± 1.6 y, range: 18-34 y, white bars) and aged (n=9, age: 69.0 ± 2.2 y, range: 57-84 y, black bars) individuals (A) or strength training (B) in young (n=8, age: 23.6 ± 1.5 y, range: 20-35 y, white bars) and aged (n=10, 69.3 ± 2.7 y, range: 55-82 y, black bars) individuals. (C) Representative blots using immunoprecipitated Akt2 which was probed for Akt-Ser473 or total Akt2 protein in young and aged individuals under non-insulin (B) and insulin-stimulated (I) conditions. All samples were normalized to total Akt2 protein and data expressed as mean \pm SEM.

