Revised Figure Legends:

**Figure 3:** The effects of DHEA administration or exercise training on protein expression of 5α-reductase type 1 in gastrocnemius muscle

Representative immunoblotting images for 5α-reductase type 1 protein are shown in the upper panels. The lower panel shows statistical analyses of the 5α-reductase type 1 protein. The blot pictures for each group are shown in duplicate.

Data are the means ± SE * $P < 0.01$ compared with the obese control group.

**Figure 4:** The effects of DHEA administration or exercise training on Akt and PKC-ζ/λ phosphorylation in the gastrocnemius muscle.

(A) Representative immunoblotting images for phosphorylated Akt and total Akt protein are shown in the upper panels. The lower panel shows statistical analyses of the ratio of phosphorylated Akt protein to total Akt protein. The degree of Akt phosphorylation in the skeletal muscle was calculated by dividing the total Akt protein level by the phosphorylated Akt protein level. (B) Representative immunoblotting images for phosphorylated PKCζ/λ protein are shown in the upper panel. The lower panel shows statistical analyses for levels of phosphorylated PKCζ/λ expression. The blot pictures for each group are shown in duplicate.

p-Akt, phosphorylated Akt; p-PKC-ζ/λ, phosphorylated PKC-ζ/λ.

Data are the means ± SE * $P < 0.01$ compared with the obese control group.
Figure 5: The effects of DHEA administration or exercise training on GLUT-4 protein expression and translocation in gastrocnemius muscle.

(A) Representative immunoblotting images for GLUT-4 proteins in the cytosol and membrane are depicted in the upper panel. The lower panel presents statistical analyses of GLUT-4 protein expression levels assessed using densitometry. (B) The level of GLUT-4 translocation was calculated by assessing the difference in GLUT-4 protein levels between cytosol and membrane fractions. The blot pictures for each group are shown in duplicate.

Data are the means ± SE * $P < 0.01$ compared with the obese control group.