**BIOLOGICAL ACTIVITY:**

Dehydroepiandrosterone 3-acetate is a testosterone/estrogen precursor and known modulator of vertebrate aggression. **In Vivo:** Dehydroisoandrosterone implants increases aggression in a laboratory-based simulated territorial intrusion. Brains of Dehydroisoandrosterone-implanted birds show higher aromatase mRNA expression in the preoptic area (POA) and higher androgen receptor mRNA expression in the periventricular nucleus of the medial striatum (pvMSt) and ventromedial nucleus of the hypothalamus (VMH). The Dehydroisoandrosterone-induced increases in aromatase expression in the POA and androgen receptor expression in the pvMSt are consistent with previously reported seasonal increases in these markers associated with naturally elevated Dehydroisoandrosterone levels[1]. Dehydroisoandrosterone supplementation (10.2 mg/kg) alone significantly increases mice body weight (BW), muscle weight, testosterone level, and glycogen contents (liver and muscle) when compared with SC group[2].

**PROTOCOL (Extracted from published papers and Only for reference)**

**Animal Administration:** [2] The oral gavage treated with Dehydroisoandrosterone once a day for 6-week at 10.2 mg/day. SC group receives the same volume of distilled water equivalent to body weight. The Dehydroisoandrosterone supplementation in WBV+Dehydroisoandrosterone group is complete WBV training after 30 min. The recommended use of Dehydroisoandrosterone for humans is about 50 mg per one intake with a normal diet and exercise program. The mouse Dehydroisoandrosterone dose (10.2 mg/kg) used in this study is converted from a human equivalent dose on the basis of body surface area by the following formula from the US Food and Drug Administration 16: assuming a human weight of 60 kg, the human equivalent dose of 50 mg/60 kg (0.83 mg/kg) = 0.83 × 12.3 = a mouse dose of 10.2 mg/kg, the conversion coefficient 12.3 is used to account for differences in body surface area between a mouse and a human.

**References:**

