

Androgen Effect on the Muscular Expression of Neurotrophins; New Pharmacological Targets and Possible Modulators

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Androgens are natural and essential hormones in the development and function of body organs. As well, these hormones can be manufactured and administered to the body aiming to treat different pathological conditions. Anabolic steroids are forms of these manufactured androgens which are excessively used by body builders aiming to gain excessive muscle weight and strength. However, the abuse of anabolic steroids is associated with variety of catastrophic complications. This dose-dependent effect especially with the differences in the prevalence and prognosis of androgen related diseases between different sexes, can indicate to dose and sex-dependent paradoxical effects of these hormones.

Our group focus on studying the effect of wide range of androgen (sustanon) dosages/ concentrations on the differential expression of the main and well-known neurotrophins, so called; BDNF, NGF, NT3 and NT4/5. This expression is studied at the level of the heart, skeletal muscles and gastrointestinal wall (muscles) of either male/ female rats or chickens. Exploring this relationship will strengthen our understanding regarding the paradoxical effect of androgen usage among athletes. On the other hand, it may identify possible pharmacological targets and modulators for variety of pathological conditions related to what we call “androgen-neurotrophins axes”.

Biography:

Dr. Nasr Alrabadi has completed his bachelor degree in medicine (2009) and received the Jordanian board for practicing medicine (2010). Dr Alrabadi completed his master degree in pharmacology (2012) and has been awarded his PhD in medicine and nanotechnology (2016) from Sydney University. Currently, he is assistant professor at the department of Pharmacology/ faculty of medicine, Jordan University of Science and technology (JUST) and a team leader for the molecular biology and analytical facility at the Nanotechnology institute/ JUST University. As a young researcher, he has 7 publications/ abstracts.