

# Characterization of the effects of estrogen on the murine heart under pathophysiologic conditions

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## Propositions

1. Although there is a lot of controversy on estrogen effects in cardiovascular system, at least some beneficial effects on the heart have been shown. (This thesis).
2. Atrial natriuretic factor (ANF), which is known as hypertrophic marker, protects the heart against left ventricular hypertrophy. (This thesis).
3. Estrogen plays its protective role in the heart by increasing the expression of ANF, cyclic guanine monophosphate (cGMP) and cGMP-dependent protein kinase (PKG) via estrogen receptors (ERs). (This thesis).
4. Estrogen receptors play different roles in the body, knowing their role in the heart will help developing new treatment methods. (This thesis).
5. Despite the interesting role of ER alpha in the cardiovascular system, the protective role of estrogen on the heart is mediated by estrogen receptor beta. (This thesis).
6. From the moment it begins beating until the moment it stops, the human heart works tirelessly. In an average lifetime, the heart beats more than two and a half billion times, without ever pausing to rest. Like a pumping machine, the heart provides the power needed for life. (from Franklin Institute web page).
7. As I see it every day you do one of two things: build health or produce disease in yourself. (Adelle Davis)
8. Soy foods contain several ingredients that may be useful in preventing disease. Isoflavonoids, such as genistein and daidzein are weak estrogens and may lessen the risk of osteoporosis and heart disease. Protease inhibitors in soy foods may reduce the risk of cancer. (Lancet 91, AHA journals).
9. The body is a marvelous machine...a chemical laboratory, a power-house. Every movement, voluntary or involuntary, full of secrets and marvels. (Theodor Herzl (1860 - 1904).
10. Life taught me that, happiness is always in you but first you have to know yourself to find it. (Own experience).
11. If you left your home because you are fighting for something, go back if you cannot find it elsewhere. (Own experience) .