

Illustration of a plant with red flowers and purple clusters, likely a species of the genus *Andropogon*. The text below the illustration is partially legible and appears to be a reference to a scientific publication.



Androgens positively regulate NO-mediated relaxant pathway in rat clitoris

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Testosterone/Estradiol Ratio Regulates NO-Induced Bladder Relaxation and Responsiveness to PDE5 Inhibitors

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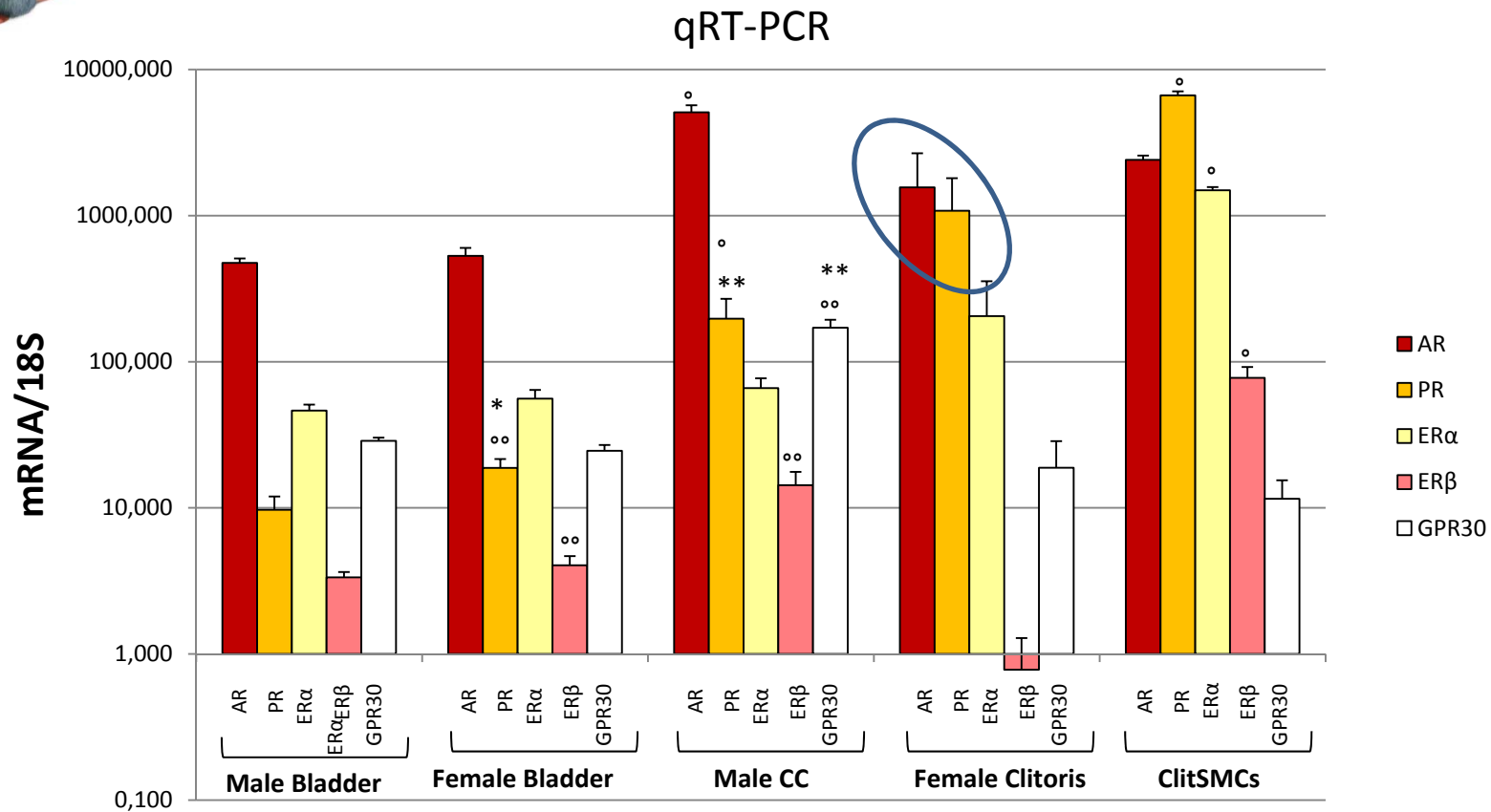
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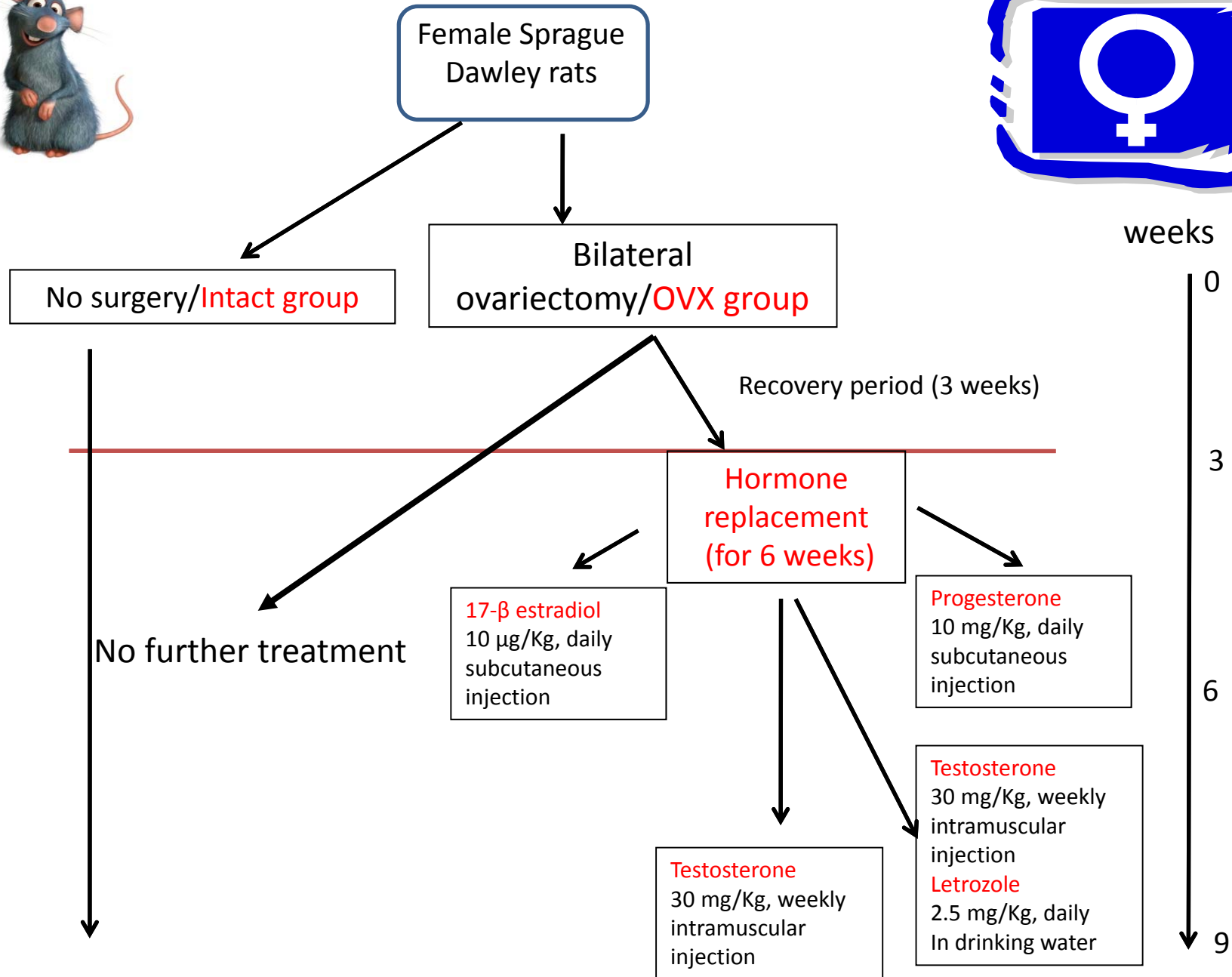
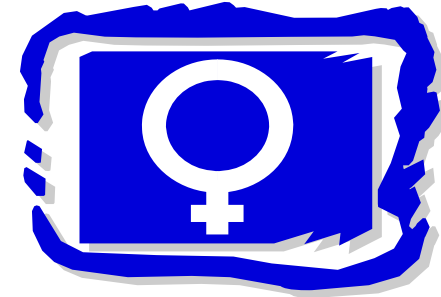


Female clitoris expresses high level of AR (similar to PR), but lower than that observed in male CC

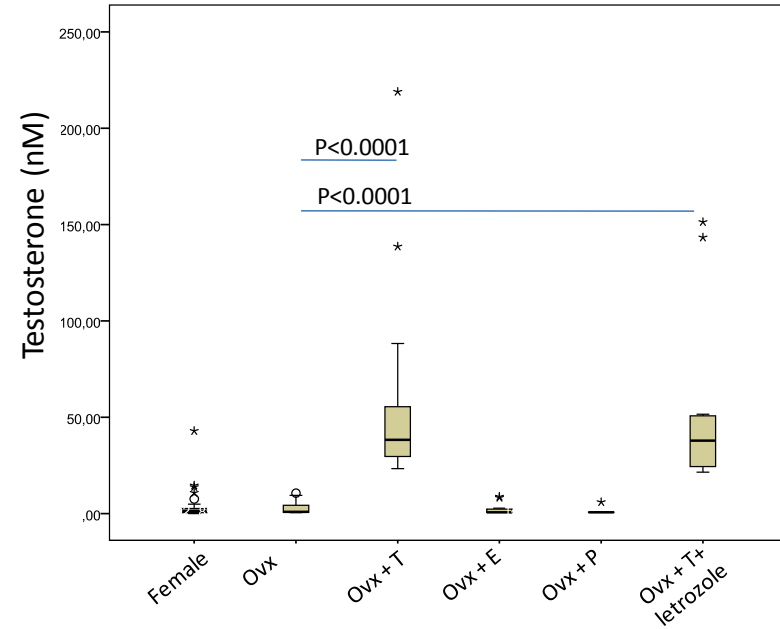
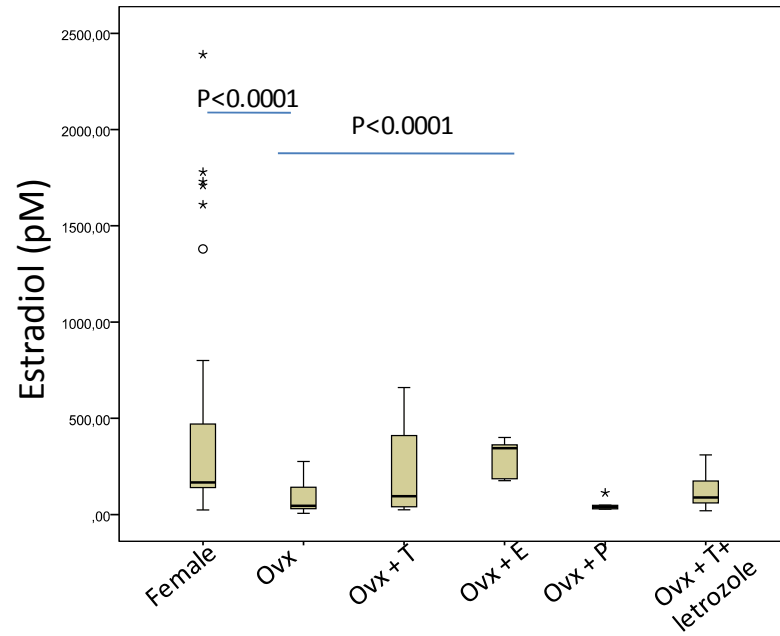


°p<0.05 °° p<0.01 vs. female clitoris

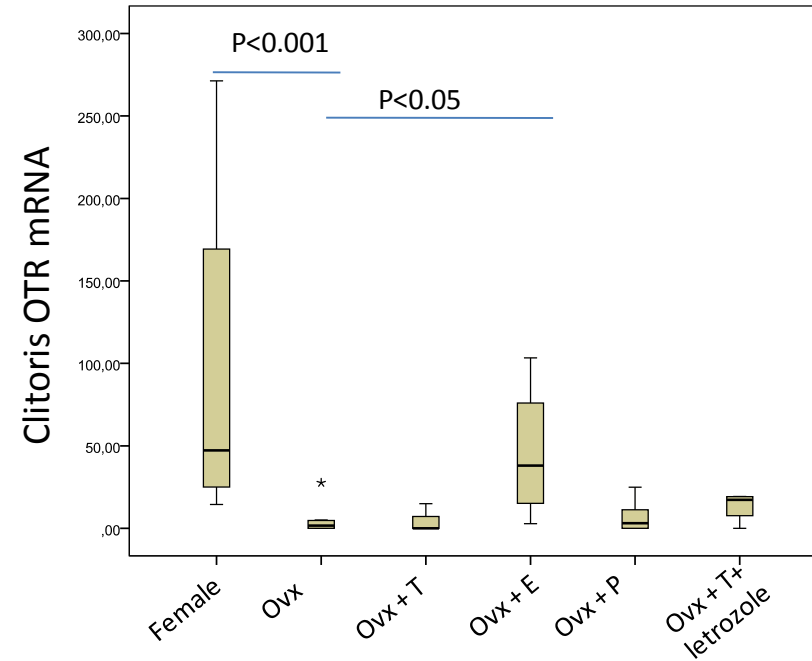
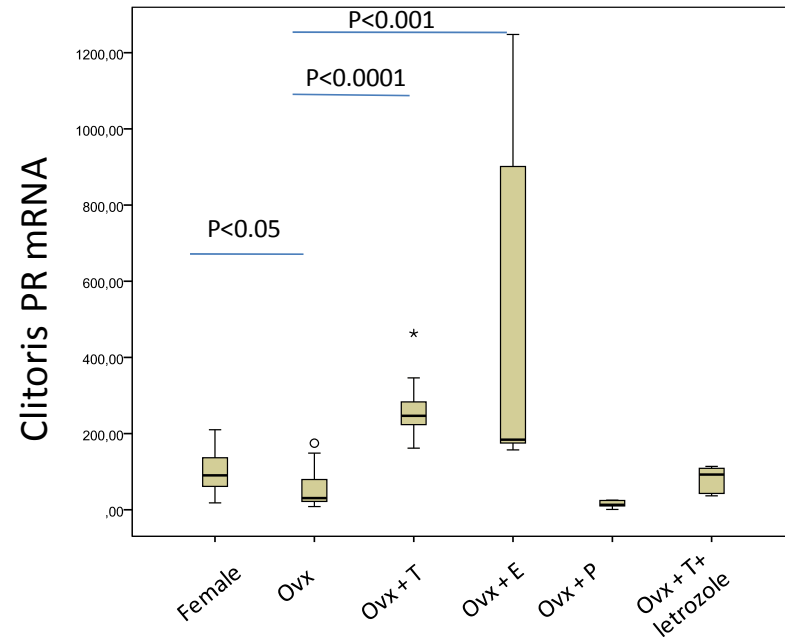
*p<0.05 and **p<0.01 vs. male bladder



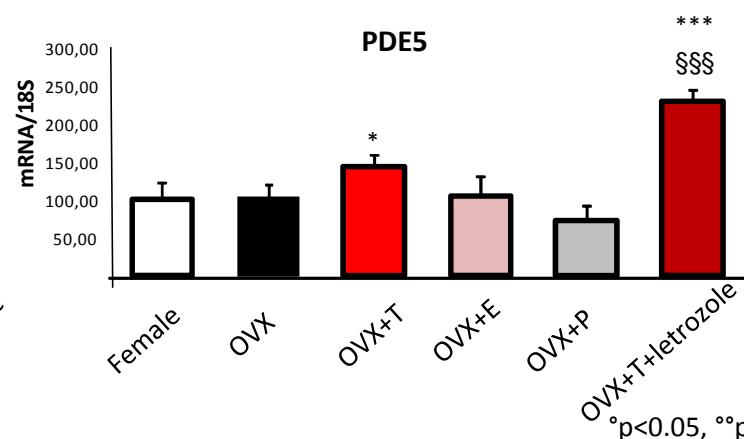
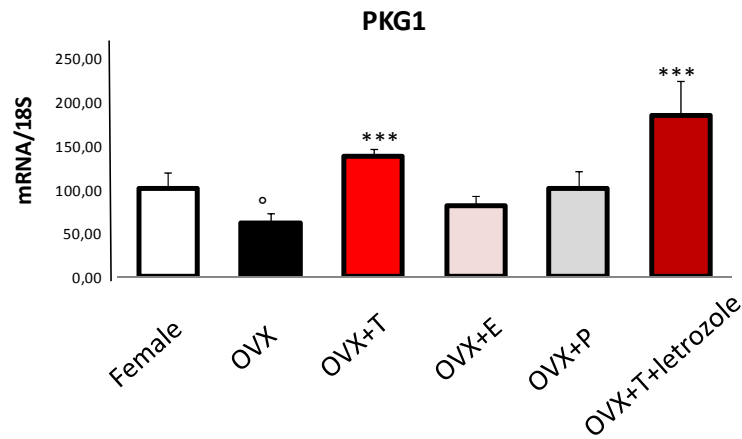
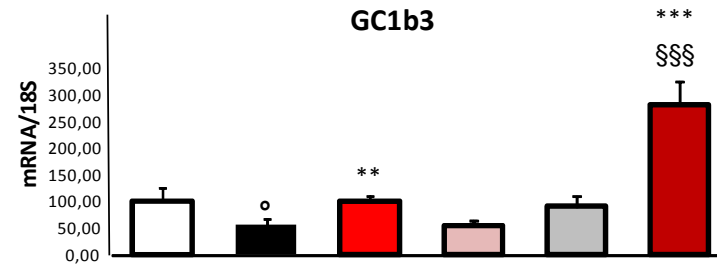
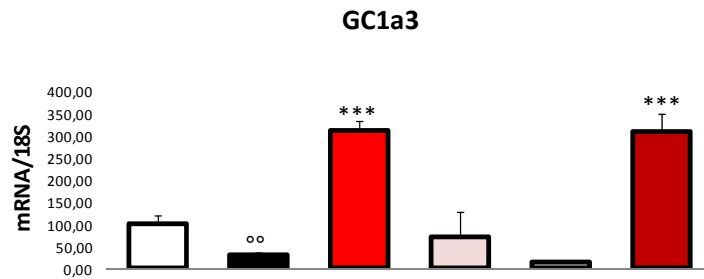
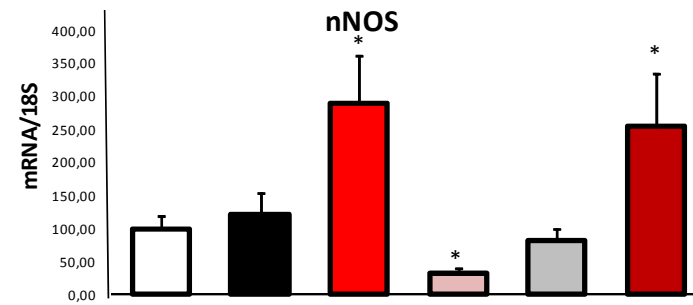
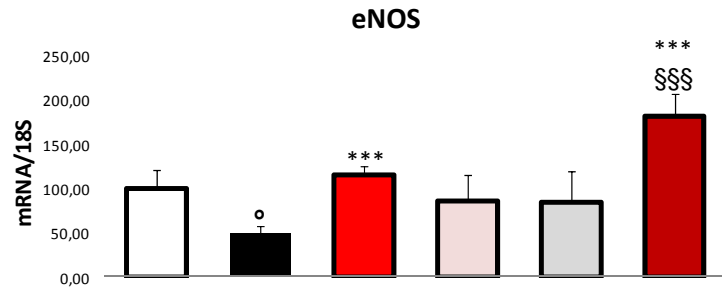
Effect of the treatments on circulating sex steroids



Effect of the treatments on two ER-dependent genes: PR & OTR

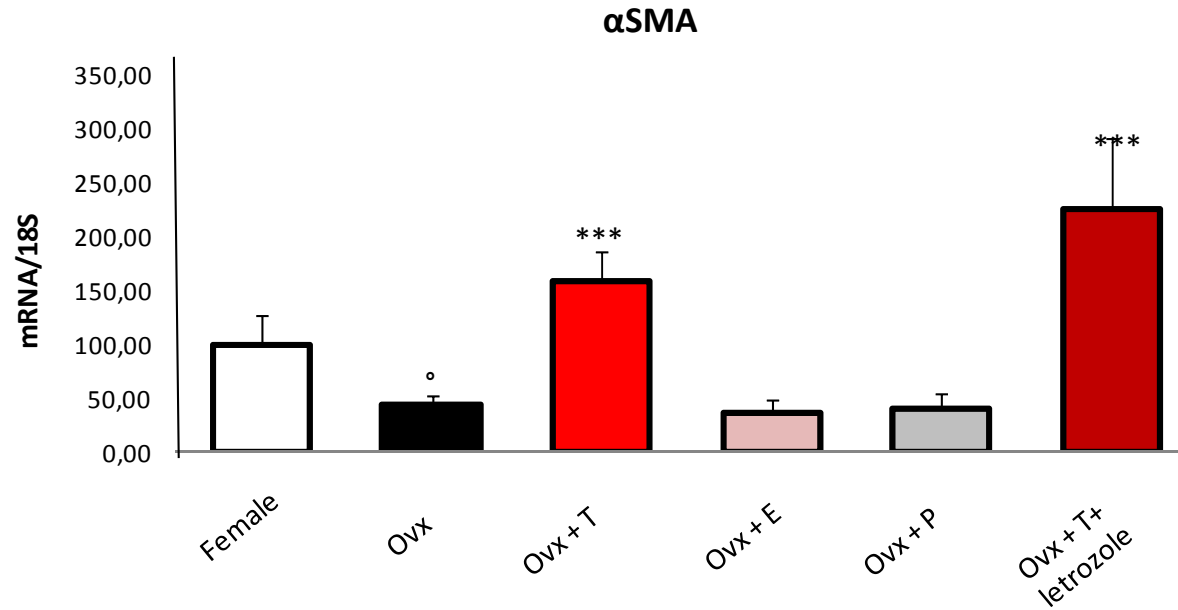


TESTOSTERONE normalizes OVX-induced down-regulation of genes related to NO/cGMP signaling



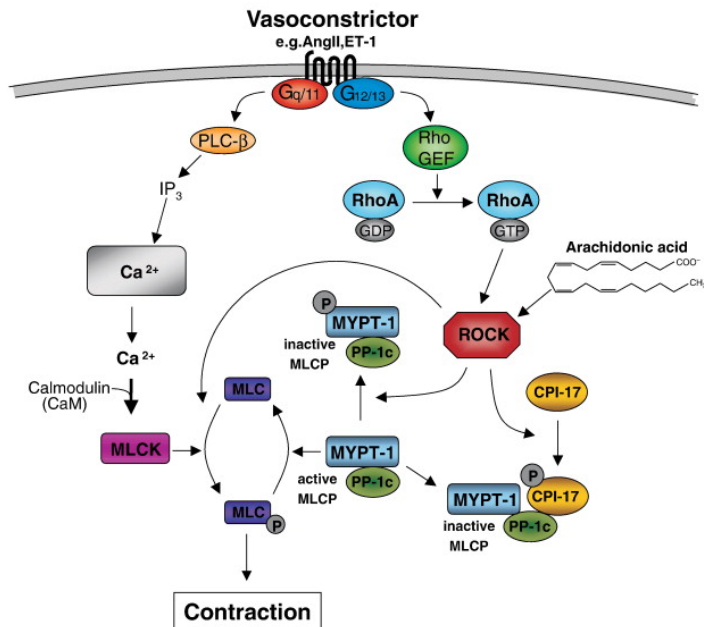
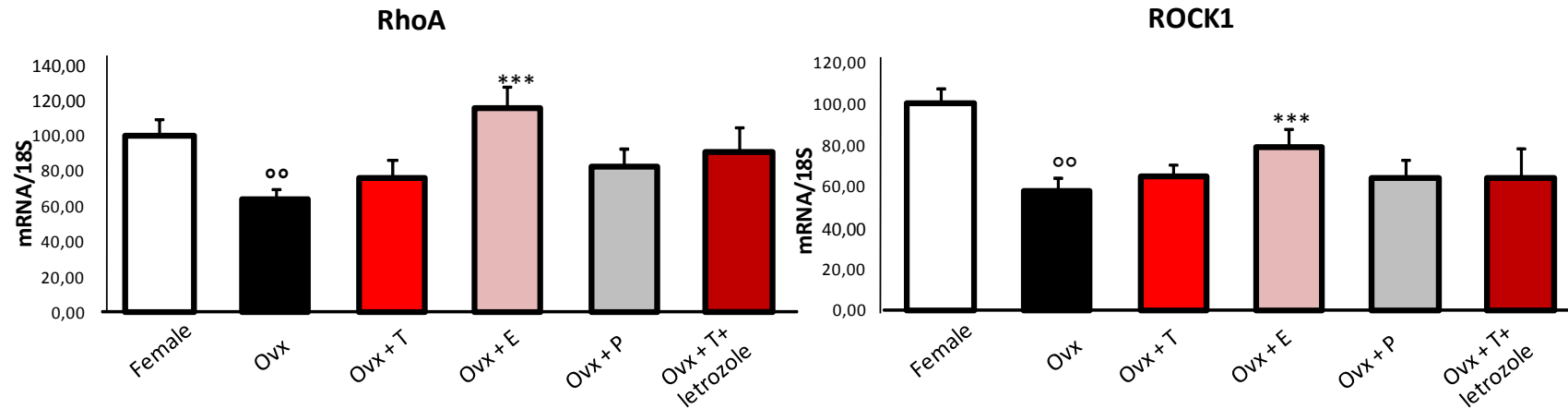
^op<0.05, ^{oo}p<0.01 vs intact female
^{*}p<0.05; ^{***}p<0.001 vs ovx
[§]p<0.05, ^{\$\$\$}p<0.001 vs OVX+T

TESTOSTERONE normalizes OVX-induced down-regulation of α smooth muscle actin



°p<0.05, °°p<0.01 vs intact female
*p<0.05; ***p<0.001 vs ovx
§p<0.05, \$\$\$p<0.001 vs OVX+T

ESTRADIOL normalizes OVX-induced down-regulation of genes related to RhoA/ROCK pathway

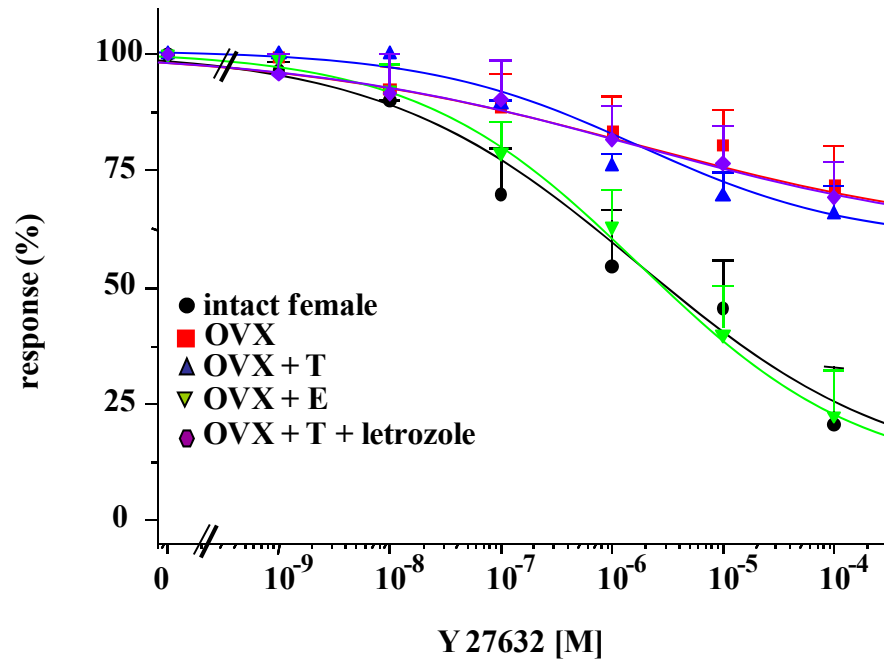


°p<0.05, °°p<0.01 vs intact female
 *p<0.05; ***p<0.001 vs ovx
 §p<0.05, §§§p<0.001 vs OVX+T



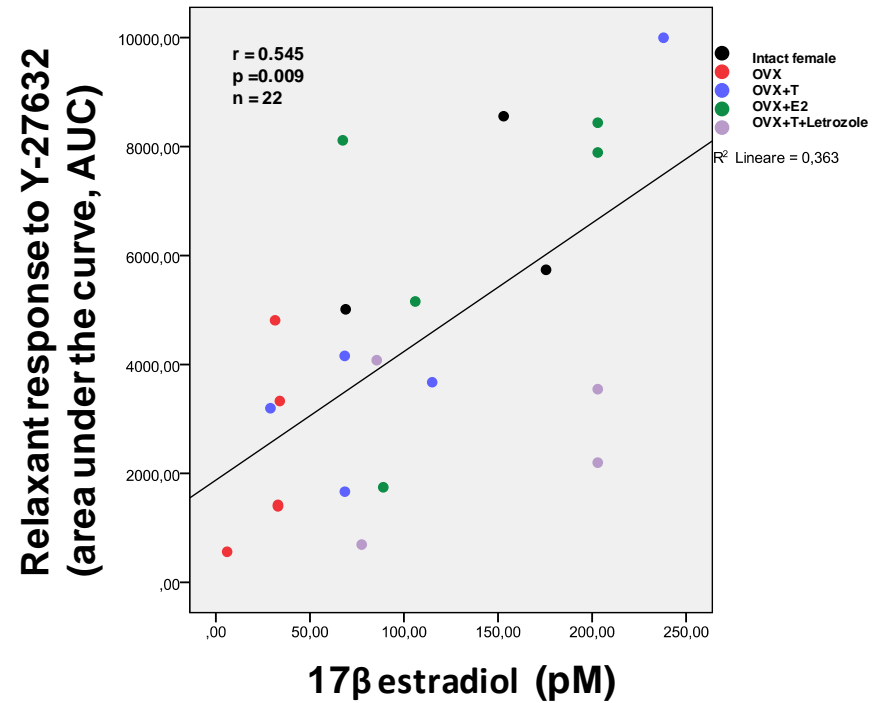
RELAXANT EFFECT OF Y27632 ON RAT CLITORAL STRIPS PRECONTRACTED BY PHENYLEPHRINE (100 μ M)

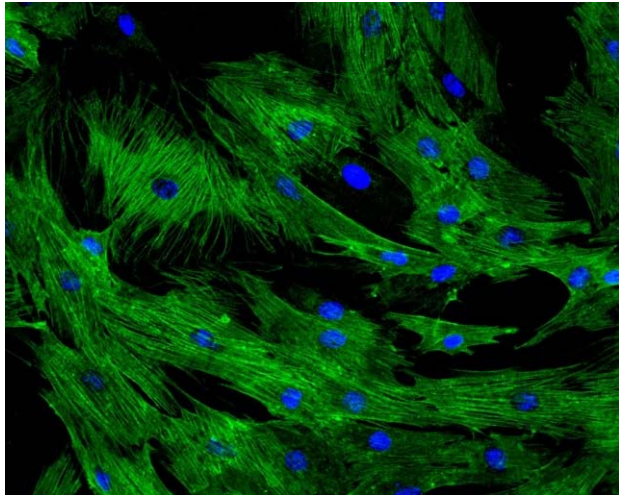
a.



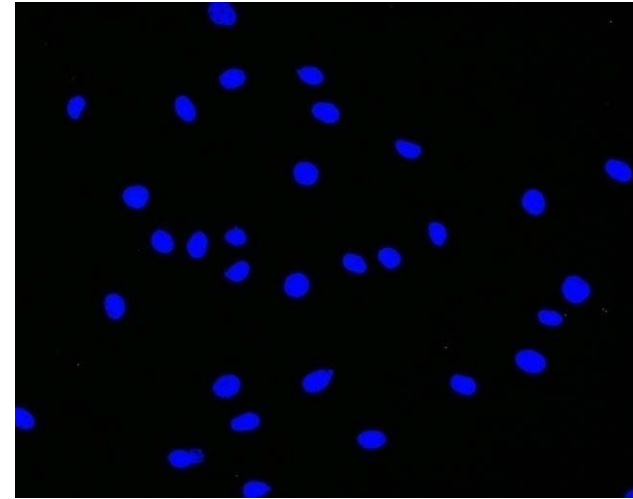
shared IC50= $1.7 \pm 0.7 \mu$ M

b.



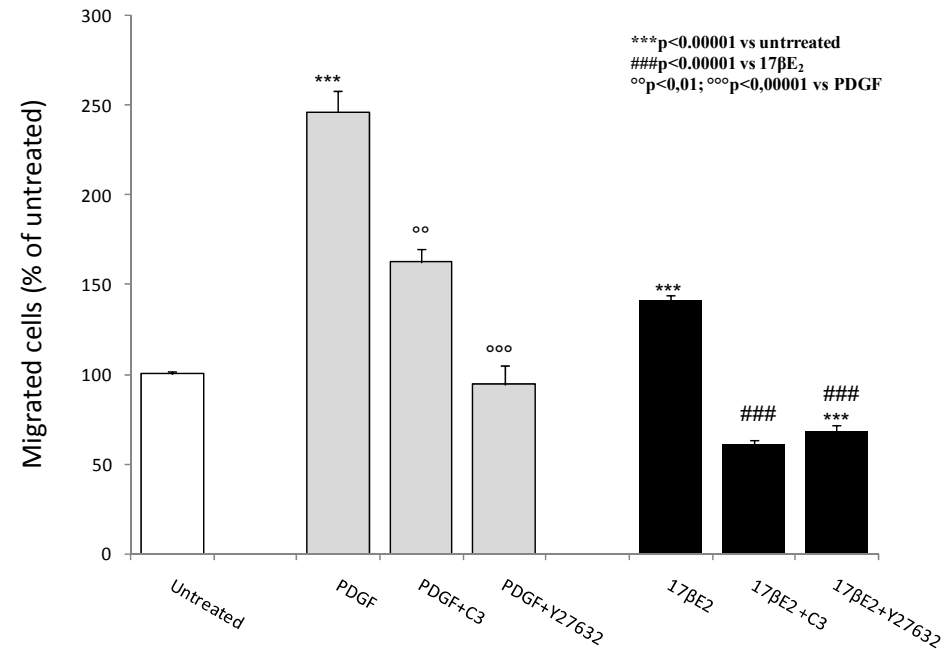


Positivity for smooth muscle marker: α SMA:98.7%



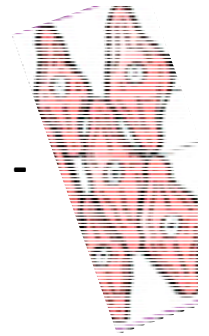
Negative for epithelial marker cytokeratin

Estradiol positively regulates RhoA/ROCK-dependent cell migration (Boyden chamber assay) in rat clitoris smooth muscle cells



Conclusions:

- TESTOSTERONE normalizes, OVX-induced downregulation of NO/cGMP signaling - related genes
- ESTRADIOL normalizes, OVX-induced downregulation of RhoA/ROCK pathway-related genes



Either Testosterone and estradiol are important regulators of clitoris relaxant and contractile mechanisms

