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## The role of glucocorticoid receptor signaling in metabolic disease: a matter of time and sex

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## **The role of glucocorticoid receptor signaling in metabolic disease: A matter of time and sex**

1. Prolonged glucocorticoid administration leads to greater skeletal muscle strength loss in female mice, despite male mice exhibiting more pronounced transcriptional alterations (*this thesis*).
2. Prolonged administration of the synthetic glucocorticoid betamethasone induces more severe skeletal muscle dysfunction in rodents than the endogenous glucocorticoid corticosterone (*this thesis*)
3. Antagonizing the glucocorticoid receptor can prevent but not reverse impaired glucose tolerance and hyperglycemia in the most commonly used mouse model for polycystic ovary syndrome (PCOS) (*this thesis*).
4. Out-of-phase administration of betamethasone induces greater hyperinsulinemia compared to in-phase treatment (*this thesis*)
5. Intermittent glucocorticoid treatment can exhibit a beneficial rather than detrimental side effect profile (*Isabella, J Clin Invest 2022*).
6. Androgen receptor (AR) and glucocorticoid receptor (GR) crosstalk is important for the regulation of metabolism (*Spaanderman, Endocrinology 2019*).
7. Sex-specific therapeutic strategies are required to mitigate glucocorticoid-associated side effects (*Kasiphak, Endocrinology 2019*).
8. The crosstalk between AR and GR in the brain may represent a potential therapeutic target for the prevention and treatment of PCOS (*Aimee, Proc Natl Acad Sci U S A 2017*);).
9. Targeting elevated trough levels of glucocorticoid signaling should be a priority in relation to metabolic disease (*Stefan, Cell Rep 2022*).
10. ‘The important thing is not to stop questioning. Curiosity has its own reason for existing’ (*Albert Einstein, 1879-1955*).