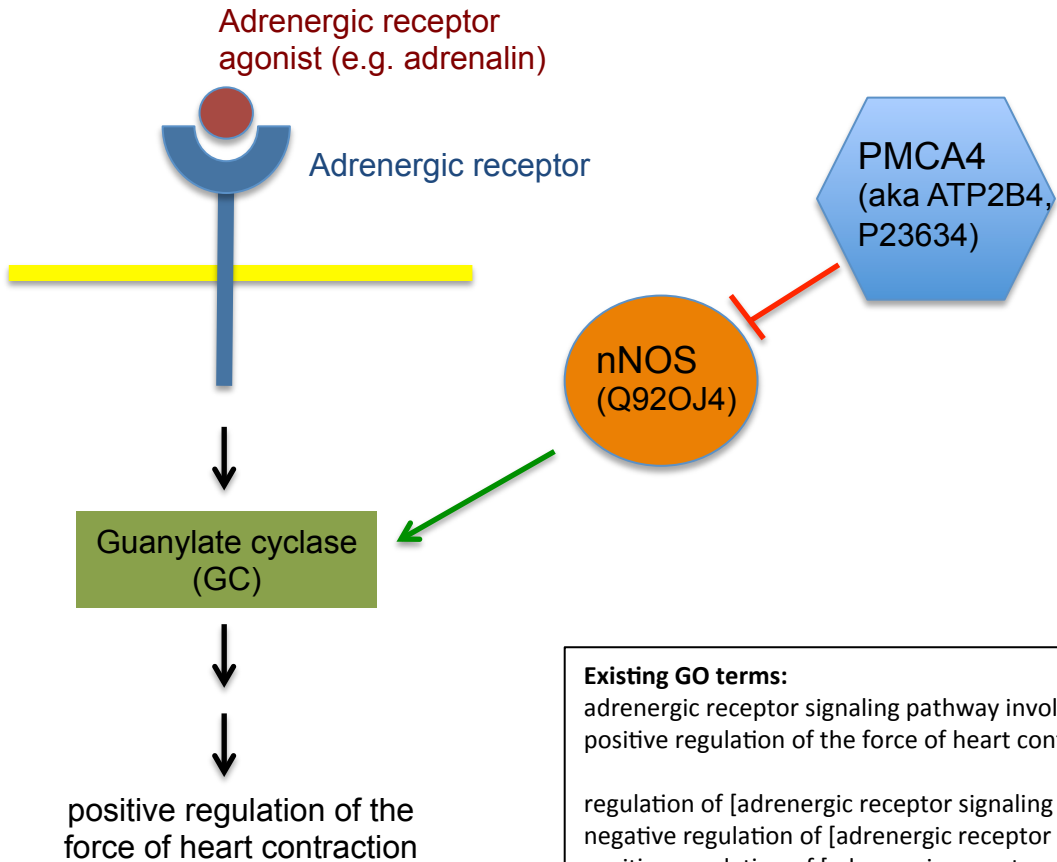


PMID:17242280

Summary:

- The adrenergic receptor signaling pathway positively regulates the force of heart contraction.
- nNOS positively regulates GC (shown in another paper) to enhance adrenergic receptor signaling, and therefore enhance the force of heart contraction. PMCA4 binds to and inhibits nNOS. This leads to a decrease in the force of adrenergic receptor-mediated heart contraction.



Existing GO terms:

adrenergic receptor signaling pathway involved in heart process ; GO:0086023
positive regulation of the force of heart contraction by epinephrine ; GO:0003059

regulation of [adrenergic receptor signaling pathway involved in heart process] ; GO:1901204
negative regulation of [adrenergic receptor signaling pathway involved in heart process] ; GO:1901205
positive regulation of [adrenergic receptor signaling pathway involved in heart process] ; GO:1901206

Need terms for:

[adrenergic receptor signaling pathway] involved in [positive regulation of the force of heart contraction] & regulation of [above term]....

Suggested new GO terms:

[adrenergic receptor signaling pathway] involved in [positive regulation of the force of heart contraction]

Essentially we need regulation of the above term, but this would create a 'regulation of regulation' (ROR) term. Can we condense it to:

[negative regulation of adrenergic receptor signaling pathway] involved in [negative regulation of the force of heart contraction]

[positive regulation of adrenergic receptor signaling pathway] involved in [positive regulation of the force of heart contraction]