Can I identify potential drug-drug interactions through opposing actions on the drug target?

Example: What other drugs affect the targets of tizanidine?

Steps to follow:

1. Put **Tizanidine** in a new pathway.

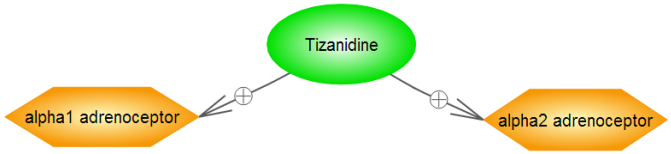
2. Go to Add > Neighbors or Connections> Expand Pathway> Direction of relations: “downstream” > Entity type: “Protein/Complex/Functional Class” > Relation type “Regulation/ DirectRegulation/ Expression.”

3. Select interesting identified entity(s). (Here more specific functional classes are selected.) Go to Add > Neighbors or Connections> Expand Pathway> > Direction of relations “upstream” > Entity type: “small molecule” > Relation type: “DirectRegulation.” *(Optional: add also Regulation and Expression to the Relation types.)*

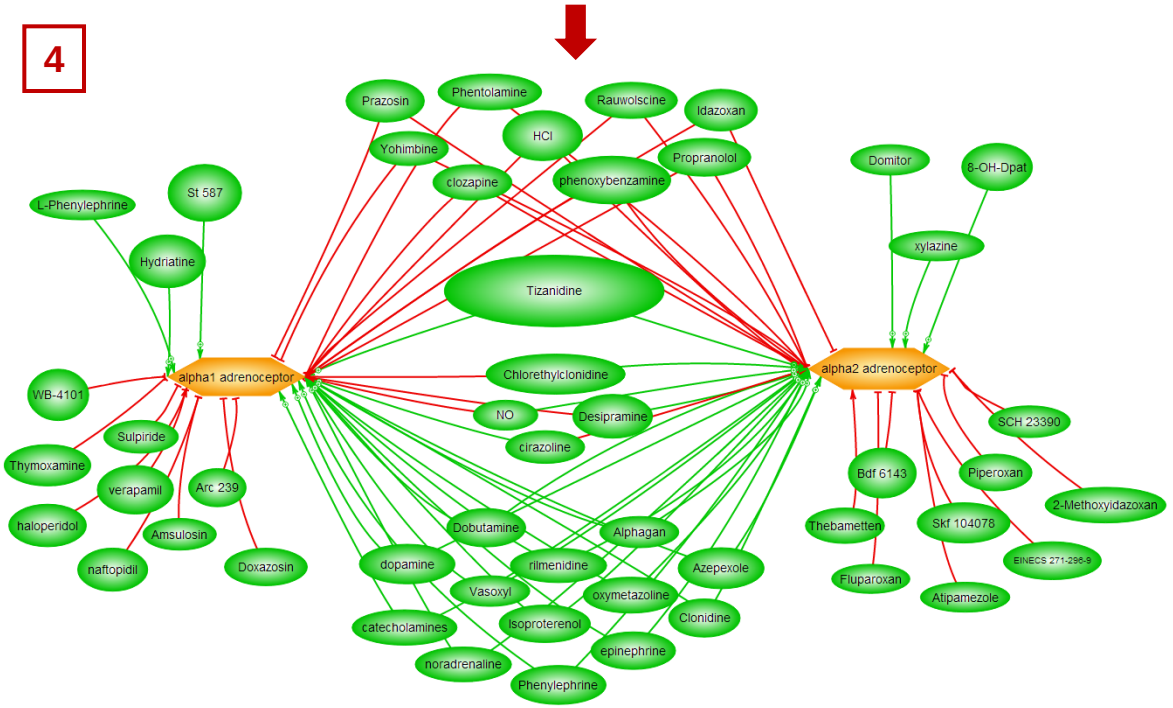
4. In the Graph View choose Style > Active Style Sheet > By Effect.

Point to consider: Removing relations with low reference counts increases the confidence in the resulting network.

2



4



Both activators and inhibitors of alpha adrenoceptors can potentially interfere with of the action of Tizanidine.