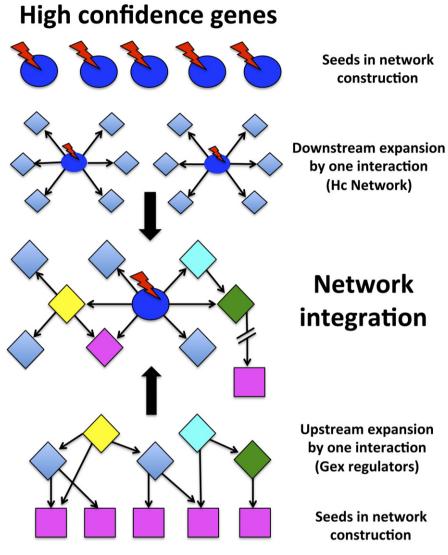
## **Expanded View Figures**



**Brain relevant genes** 

## Figure EV1. Schematic of the approach used to generate the High-confidence (Hc) network. Thirty-two (32) Hc genes (blue circles) were mapped onto Metacore GeneGo to construct a Hc network. Each Hc gene was used as node to identify direct downstream targets (diamond shapes). Red lightning bolts represent the possible presence of mutations

affecting the Hc genes. Similarly, twenty-three (23) brain-relevant genes (purple squares) were used in Metacore to look for direct upstream regulatory genes (yellow, cyan, green diamond shapes). Downstream and upstream targets were integrated into a final  $\ensuremath{\mathsf{Hc}}$ network.

## Network integration

Upstream expansion by one interaction (Gex regulators)

> Seeds in network construction