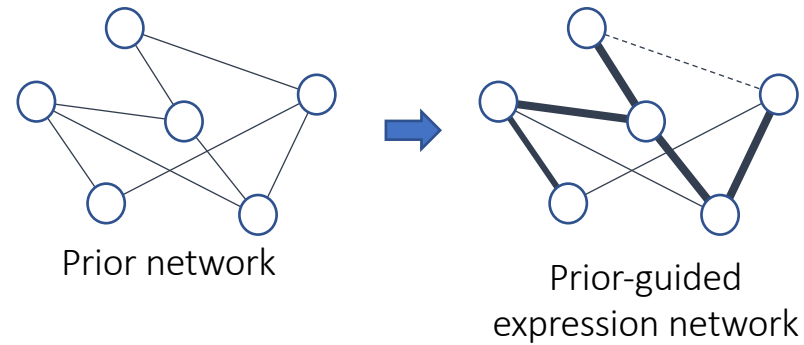


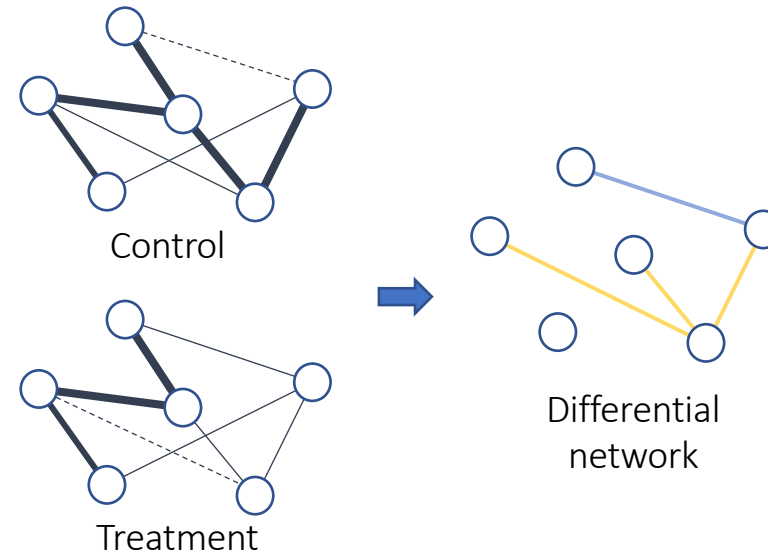
- Prior-guided gene expression network using KiMONo<sup>1</sup>



- Approach DiffGRN<sup>2</sup>: differential gene interactions using a z-test

$$z_{ij} = \frac{\hat{b}_{ij}^T - \hat{b}_{ij}^C}{\sqrt{SE(\hat{b}_{ij}^T)^2 + SE(\hat{b}_{ij}^C)^2}},$$

Where  $\hat{b}_{ij}^T$  and  $\hat{b}_{ij}^C$  are estimated regression coefficients of gene i and gene j within control and treatment group



<sup>1</sup>Ogris et al., Sci Rep, 2021

<sup>2</sup>Kim Y et al., Int J Data Min Bioinform, 2018