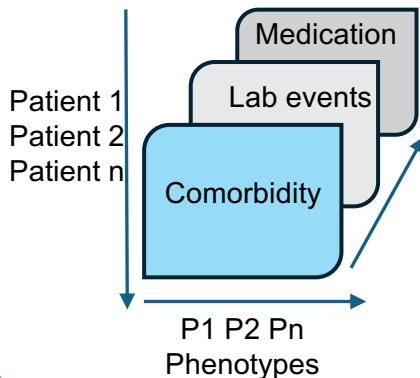
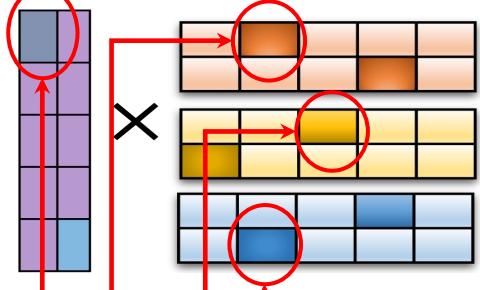


## Input data



## PhenoNMF



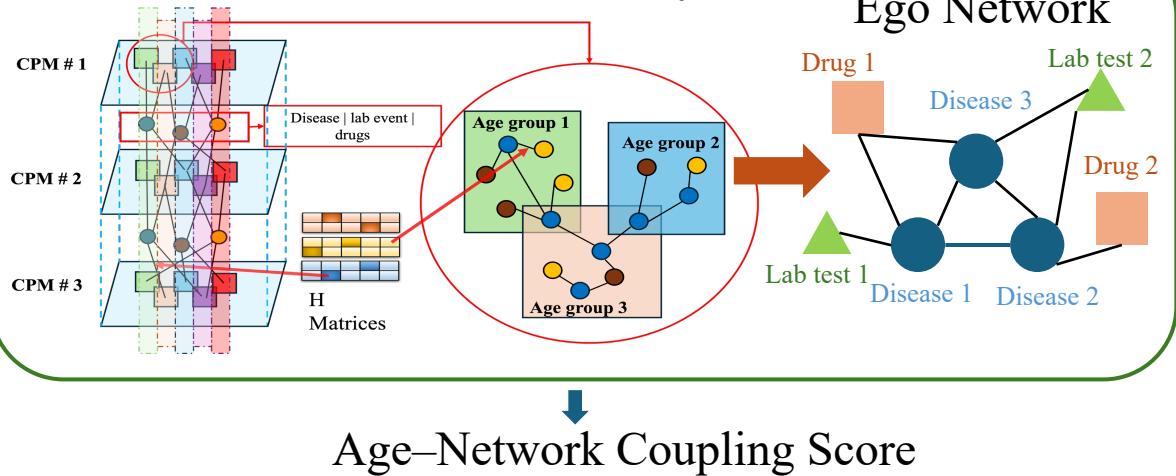
## Age-weighted feature contribution

Equation for age-weighted feature contribution:

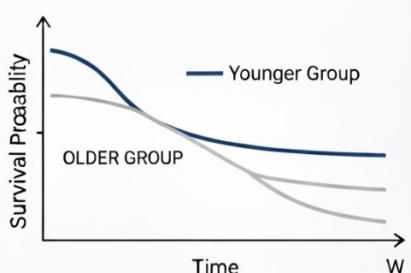
$$\text{WeightedIntensity}_{\text{age},d} = \bar{W}_{\text{age}} \times H_{1,d}$$

Where  $\bar{W}_{\text{age}}$  is the average weight for age, and  $H_{1,d}$  is the feature contribution from the first matrix for feature  $d$ .

## Network analysis



## SURVIVAL ANALYSIS



Candidate feature combinations