Disease

Simulated treatment

Effect of the "Drug1" drug?

In silico treatment

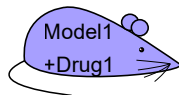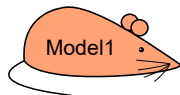**1. Orthology mapping** Assumes: mapping is complete enough to make sound predictions

3. Apply fold changes to orthologs Assumes: functions tend to be conserved

2. Treatment Assumes: reverting disease fold changes may treat disease

Model1

Model1 +Drug1

Insufficient effect?

Unwanted effects?

Disease reversal?