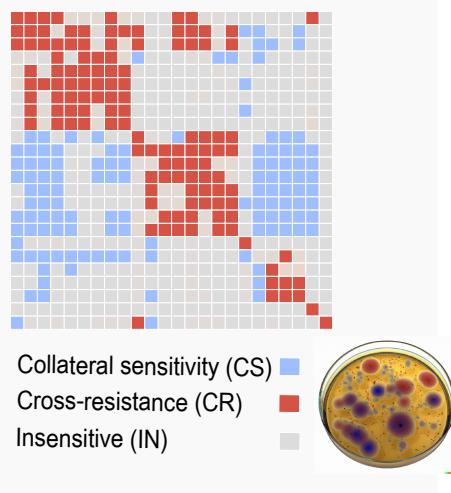
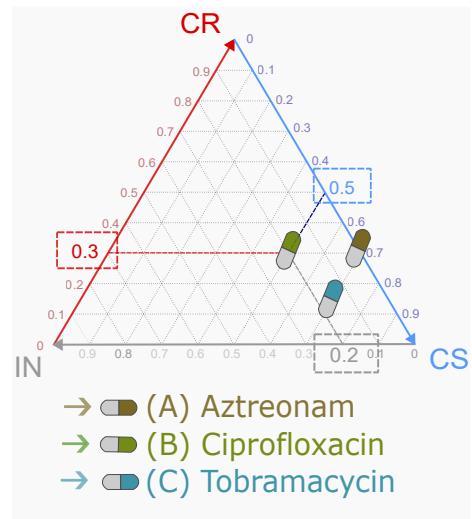


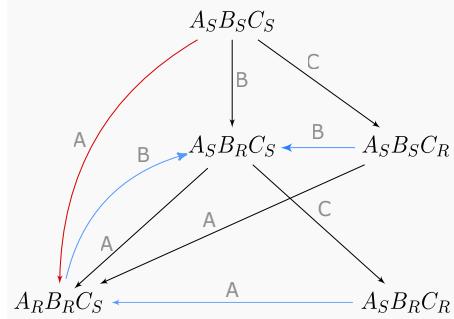
## Step 1: Experimental data



## Step 2: Ternary optimization



## Step 3: Evolutionary network



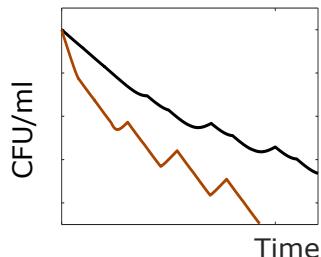
## Step 4: Computational analysis



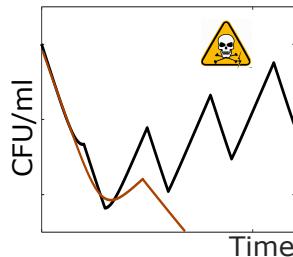
- Selection of antibiotics to maximize collateral sensitivity
- Data driven evolution model
- Computing optimal drug cycling

## Step 5: Predicting potential failing of antibiotics

Likely Successful Therapy  
(Optimal CS)



Likely Failing Therapy  
(Limited CS)



Potential Failing Therapy  
(Poor CS)

