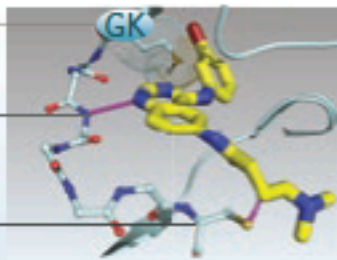


## Type I active



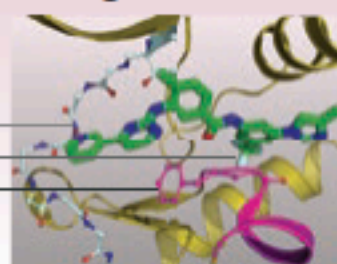
Small gatekeepers provide key to selectivity

- Hinge interaction provides a general anchor point
- Cysteines may lead to selective irreversible inhibitors

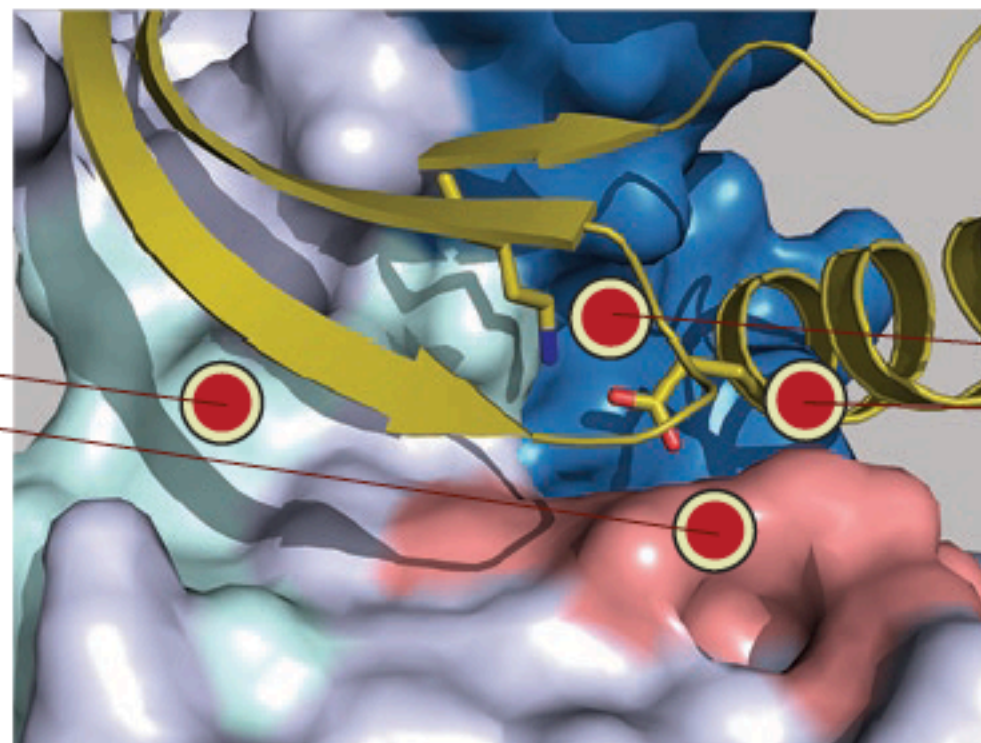
Require 'DFG out' conformation

Opening of diverse hydrophobic cavity

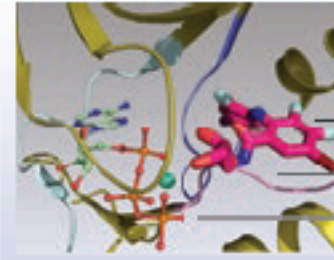
Usually ATP mimetic hinge interaction



## Type II inactive



## Type III allosteric



Non-ATP competitive  
Pocket outside the ATP binding site

Usually high selectivity due to target-specific allosteric pockets

Aromatic residues at the tip of the P-loop with ability to adopt 'folded' conformation  
Cavity created between the P-loop and  $\alpha$ C



## 'Folded' P-loop