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# Optimizing Models of Dual-Specificity Phosphatases (DSPs)

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# Project goals

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- Run DOCK with the tertiary structures of DSP's modeled by students from PRIME 2011 to determine how well ligands bind to the models
    - Choose the best model based on DOPE score
    - Minimize energy using UCSF Chimera
    - Improve loops near the active site using loop modeler
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# Project Progress

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- Optimized structure of DSP1
- Optimized SSH-1 and SSH-3
  - Trimmed sequences of SSH-1 and SSH-3 down to parts homologous with crystallized structure of SSH-2
  - Remodeled SSH-1 and SSH-3
- Fixed dock for the milk cluster

## Next week's goals

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- Continue to optimize the protein models
- Dock the models with the ligands
- Research other potential projects?

# Culture in Japan

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