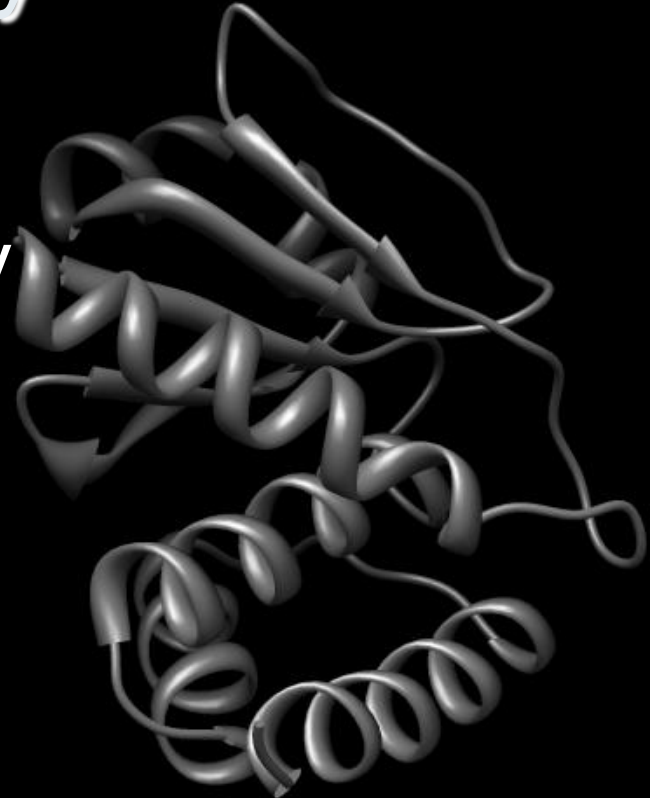


Virtual screening and 3D protein structure model optimization of the DSP family

Olivia Yang
Osaka University
7/30/2012



Week 5 Progress

- Reranked results of SSH3 DOCK screening
- Vicky continuing AMBER screening of SSH1 on milk
- Josh continuing AMBER screening of SSH3 on milk
- Working on fixing issues with DOCK on milk and ocikbpra
 - Reinstalled DOCK and open-mpi on milk
 - Cleaned out ocikbpra cluster and reinstalled

Next Week's Goals

- Get AMBER screening working across multiple clusters without issues
- Start AMBER screening of DUSP21
- Organize and compile results of DOCK and AMBER screenings of SSH1, SSH3
- Read about Open MPI and DOCK6 software functionality to better understand problems that are coming up and figure out how to fix problems
- Learn more about scripting

Major Successes

- Wrote script that automates installation for clusters
- Making progress on screening priority proteins in DSP family, SSH1 and SSH3

Road Blocks

- Installation issues leading to problems in screening
 - Working on pinpointing issues
 - Discussing issues with teammates and dividing tasks
- Sharing processor space
 - Processors used for priority proteins first

Clockwise, from top left:

- Making friends with the Toyonaka campus cat
- Path to Kasuga Grand Shrine (春日大社) in Nara
- Fireworks at the Tenjin festival (天神祭)
- Making friends with deer in Nara
- Okonomiyaki! (お好み焼き)
- Bamboo forest in Arashiyama (嵐山)

Culture!



Before and after:
(Traditional Japanese style buffet in Arashiyama)



Acknowledgements

- Host institute (Osaka University)
 - Dr. Susumu Date
 - Dr. Kiyoshi Kiyokawa
- UCSD
 - Dr. Jason Haga
 - Dr. Gabriele Wienhausen
 - Dr. Peter Arzberger
 - Teri Simas
 - Jim Galvin
 - Tricia Taylor
- Funding
 - National Science Foundation
 - Nomura PRIME Eureka! Scholarship
 - Ledell Chancellor's Undergraduate Research Scholarship