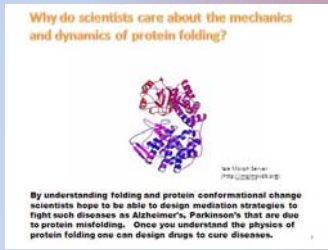


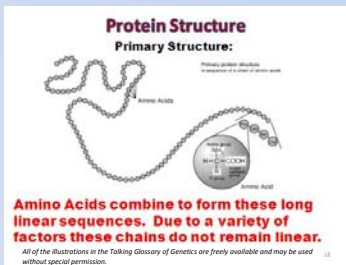
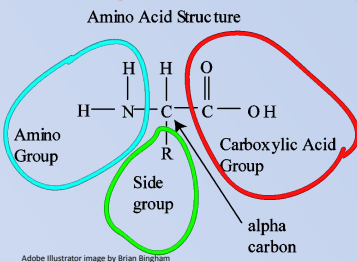
Modeling Protein Folding

Brian Bingham - Deer Valley High School
 Fred Haeger - Deer Valley High School
 Richard Runyon - Agua Fria High School



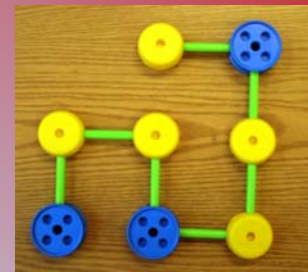
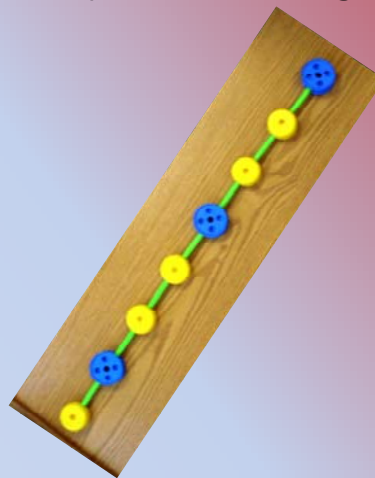
How will our high school students effectively model protein folding?

1. Background Chemistry

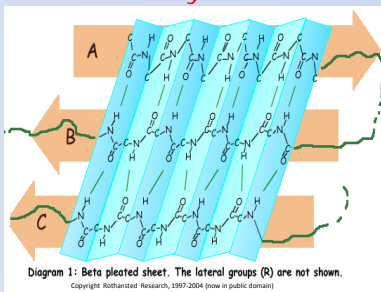


Tinkertoy® Activity:

What forces could drive protein folding and what possible configurations might they take?

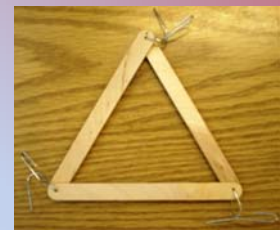
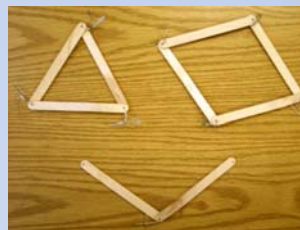


2. Secondary structure.



Popsicle Activity:

Are proteins rigid, non-rigid or a combination of both?

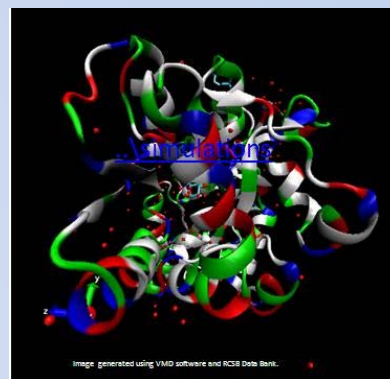


3. Tertiary structure: The protein folds.



I, the creator of this image, hereby release it into the [public domain](#). This applies worldwide.

Computer simulation activity:
 Using VMD software and RCSB Protein Data Bank.



Acknowledgements:
 Science Foundation Arizona
 National Science Foundation
 Arizona State University
 Center for Biological Physics
 Dr. Michael Thorpe
 Dr. Banu Ozkan
 Dr. Arjan van der Vaart