

Cheme 355
Module 2 project
Design Space of a Protein

- Blast for 3 other collagen molecules----- / 9
3 molecules by BLAST
Amino acid sequences attached
- List of 4 sequences and 3 other organisms----- / 9
List of 4 sequences with organism name
Common name
Latin name
Major Phylogenetic position
- Clustal----- / 11
Alignment attached and done properly
- Look up Collagen in PDB, analyze in VMD----- / 13
Find and use both molecules in PDB
Compare using VMD
Print outs of single and compared structures
- Conclusions about variability with respect to structure----- / 25
variations from clustal in repeating domain, and outside
repeat length changes
what role does GXY motif play in terms of structure and function?
role of non-GXY motif (outside repeat) on structure and function?
thermo/kinetic of assembly process
Where is an OI mutation on this structure?
Draw conclusion about conserved domains being conserved because
they are required to carry out the function of the protein.
- Presentation / Format / Team member list----- / 8
in report format, with full sentences, descriptive paragraphs
not just half sentences answering the questions

Total _____ / 75