BIOC530: Homework 3
Due 10/31

Contact information:
Name: _____ Department_____
Student #_____ Email address_____

1. Calculate the NMR frequency of
1) ^{1}H
2) ^{15}N
atoms in a magnetic field of 3T.

2. How would you use NMR to distinguish a folded protein from an unfolded one?

3. Have a look at the table from the slide titled “Patterns of NOE interactions define protein secondary structure”, explain why α-helices and β-sheets have different NOE interactions.

4. How do long and short mixing time affect NOESY experiments differently?