## **Physicochemical Properties of Protein Tertiary Structure**

This data set was pulled from <u>UCI</u>. This dataset contains the following information for each instance:

- 1. RMSD Size of the residue.
- 2. F1 Total surface area.
- 3. F2 Non polar exposed area.
- 4. F3 Fractional area of exposed non polar residue.
- 5. F4 Fractional area of exposed non polar part of residue.
- 6. F5 Molecular mass weighted exposed area.
- 7. F6 Average deviation from standard exposed area of residue.
- 8. F7 Euclidian distance.
- 9. F8 Secondary structure penalty.
- 10. F9 Spacial Distribution constraints (N,K Value).

This data is good for regression. You can implement in several ways, but can have students experiment with attributes F1-F9 to predict RMSD.

You can use the following code to load the data into google colaboratory:

import pandas as pd
url = "https://raw.githubusercontent.com/the-codingschool/TRAIN-datasets/main/protein/protein\_tertiary.csv"
df1 = pd.read\_csv(url)