

## Home assignment 2

Lamin A/C Gene that causes Hutchinson-Gilford progeria syndrome, often called the "Benjamin Button disease."

1. Selected any protein of Interest and give the name and then select any interesting structure from the result then do the following.
  - a. What is the selected PDB ID?
    - i. **7D9N | pdb\_00007d9n**
  - b. What is the full name of the protein?
    - i. **Crystal structure of a non-canonic progeria mutation S143F at lamin A/C and its structural implication to the premature aging**
  - c. Find the Length of its Sequence.
    - i. **204**
  - d. Find any two positions of Ramachandran outliers.
    - i. **0**
  - e. Find the superfamily of the protein based on SCOP classification.
    - i. **Intermediate filament protein (Filament)**
  - f. Find the experimental method for this structure.
    - i. **X-RAY DIFFRACTION**
  - g. Find the Genome location (if available)
    - i. **Homo sapiens isolate CHM13 chromosome 1, alternate assembly T2T-CHM13v2.0**