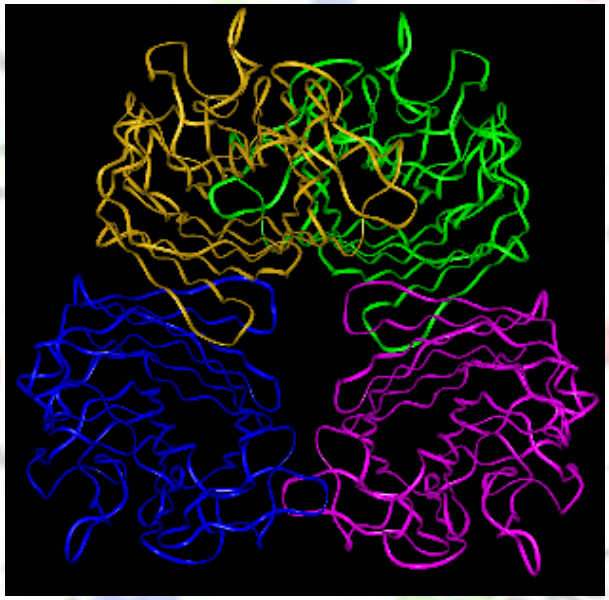
M. VIJAYAN

Research Interests

1.Structure, sugar specificity and multi-valency of lectins



Legume lectins

Peanut lectin

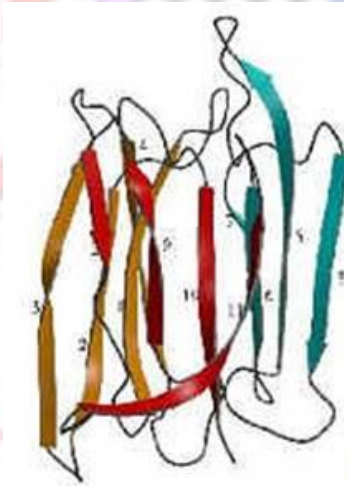
Winged bean lectins

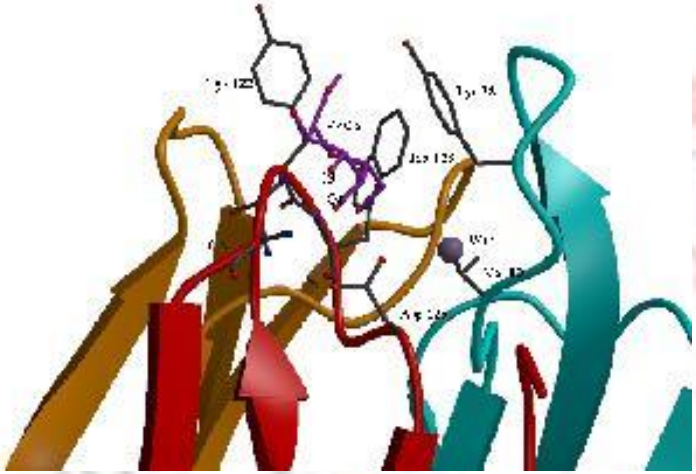
Recombinant *Erythrina corallodendron* lectin

β-Prism fold I lectins

Jacalin from jackfruit seeds

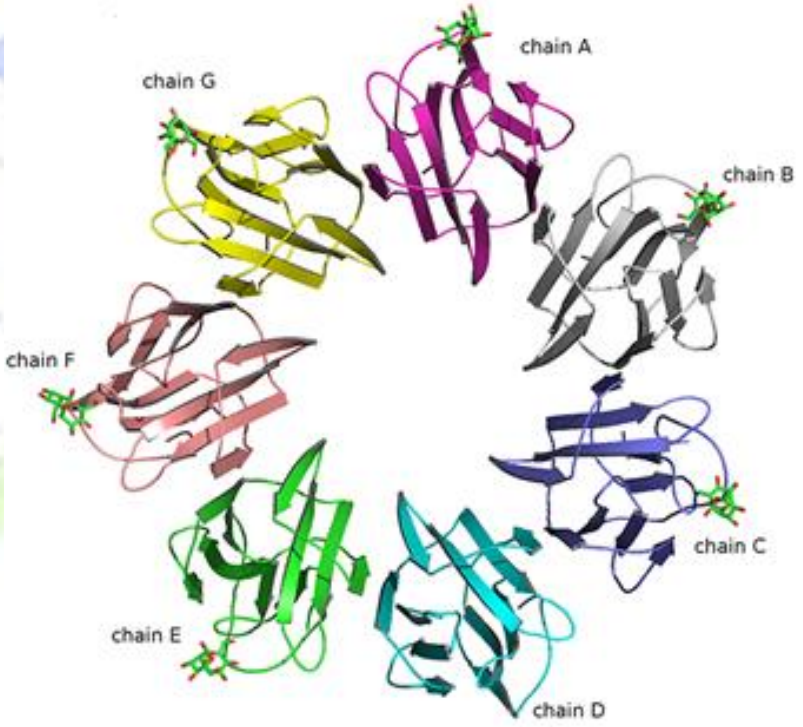
Artocarpin from jackfruit seeds





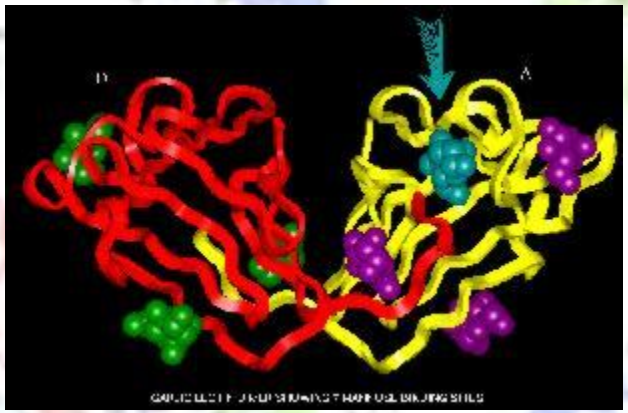
Banana lectin

Archeal *Mevo* lectin

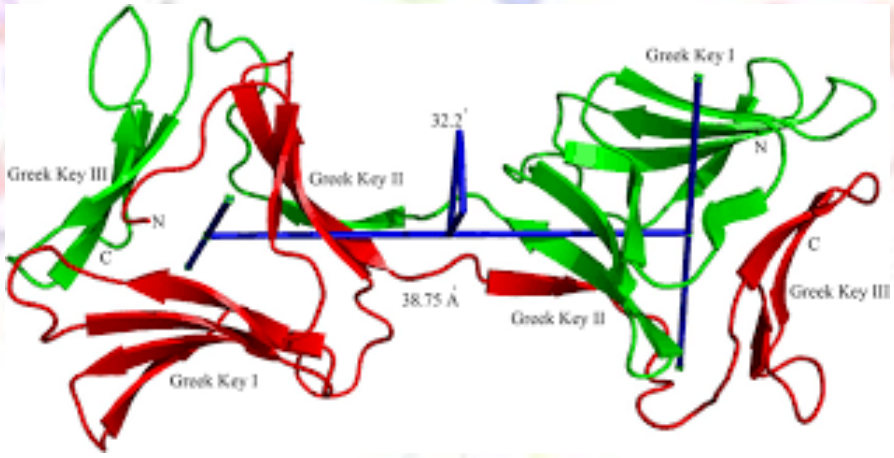


β-Prism fold II lectins

Garlic lectin



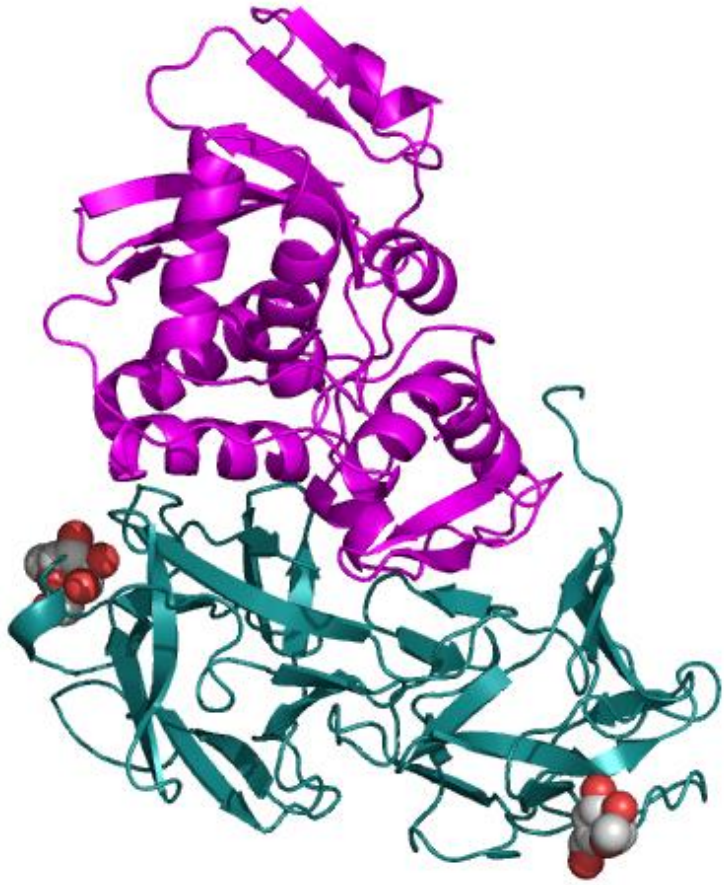
M. smegmatis lectin



β-Trefoil fold lectins

Snake gourd Seed lectin (SGSL)

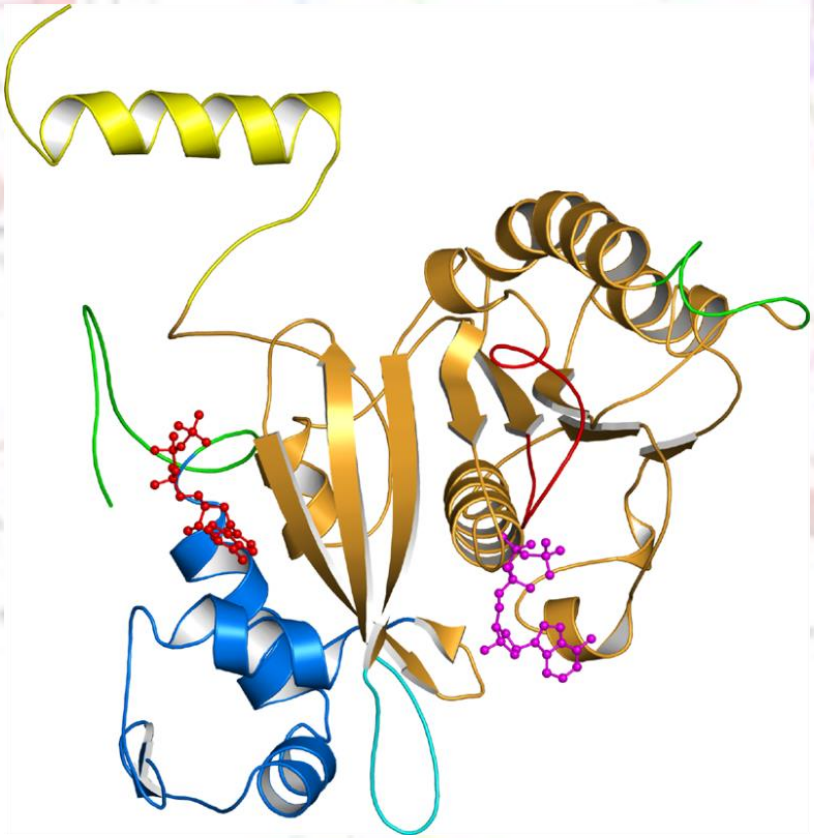
Bitter gourd seed lectin (BGSL)

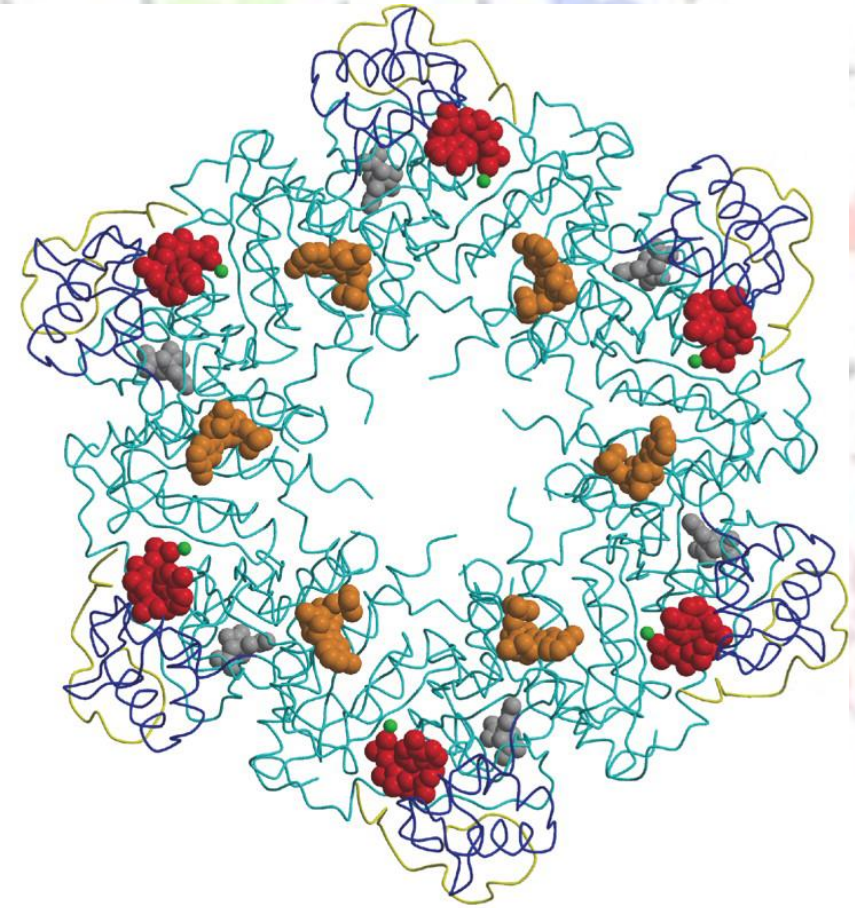


2. Structural biology of mycobacterial proteins

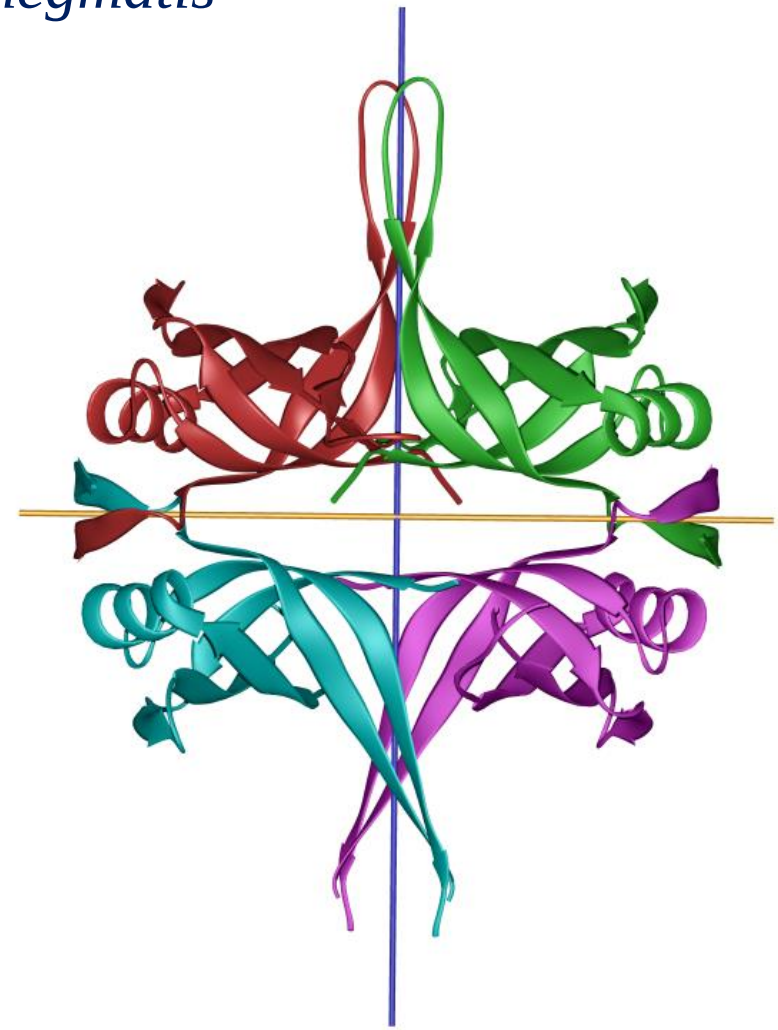
Recombination and Repair

RecA from *M. tuberculosis* and *M. smegmatis*

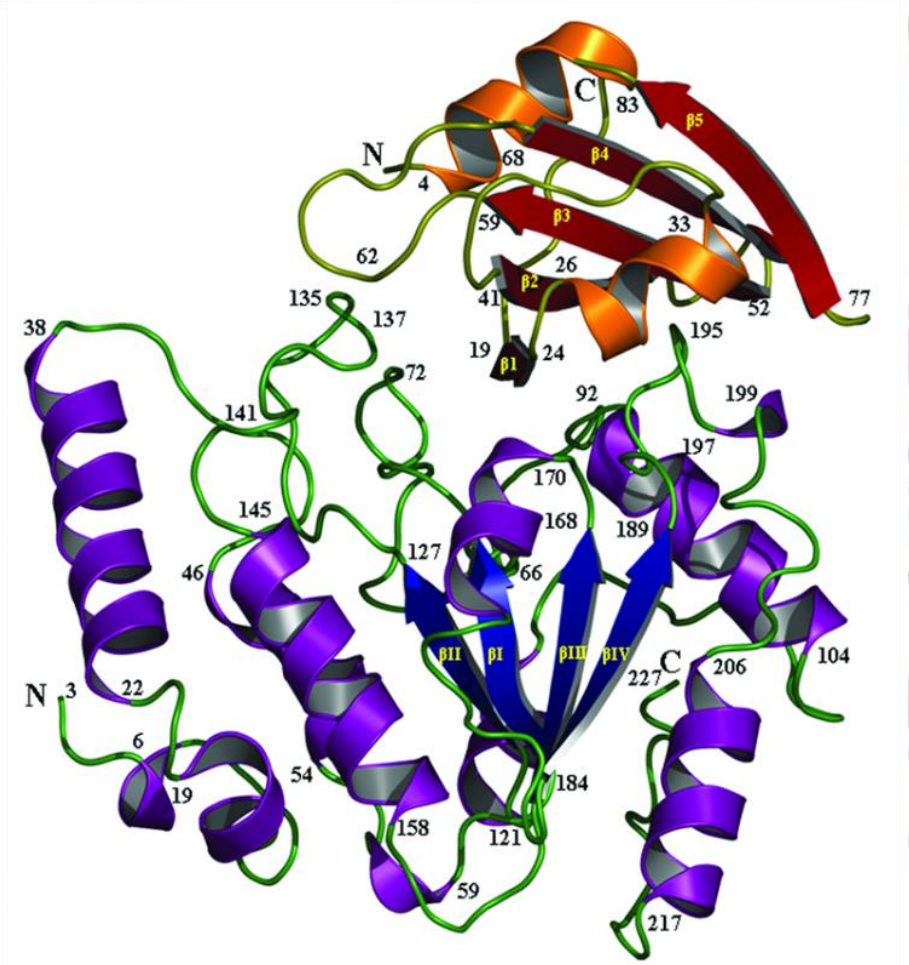




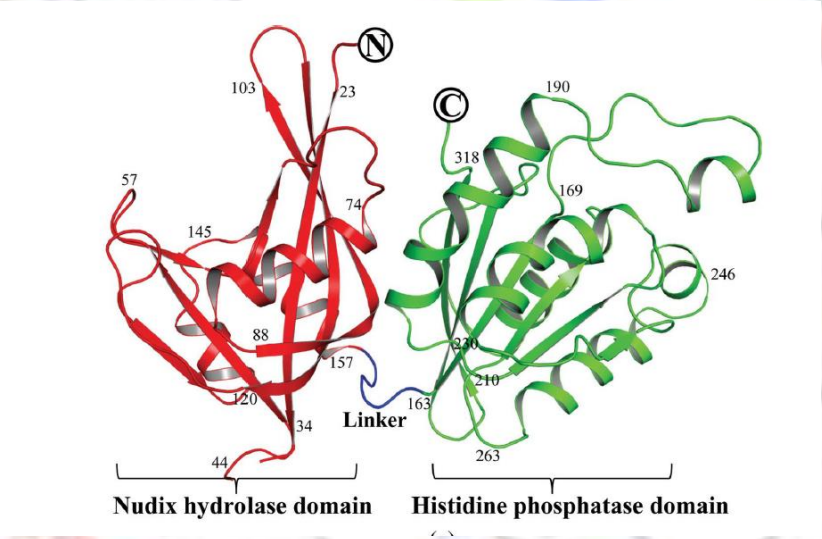
Single-stranded DNA binding from *M. tuberculosis*, *M. leprae and M. smegmatis*



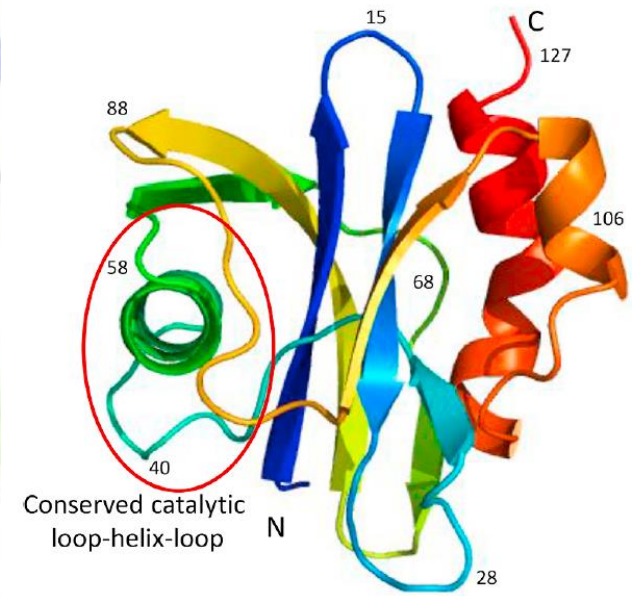
Uracil DNA glycosylase from *M. tuberculosis*



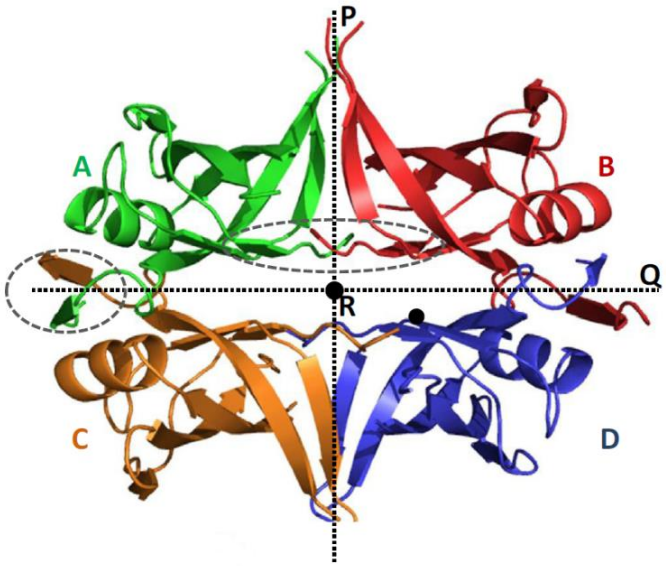
MutT1 from *M. smegmatis*



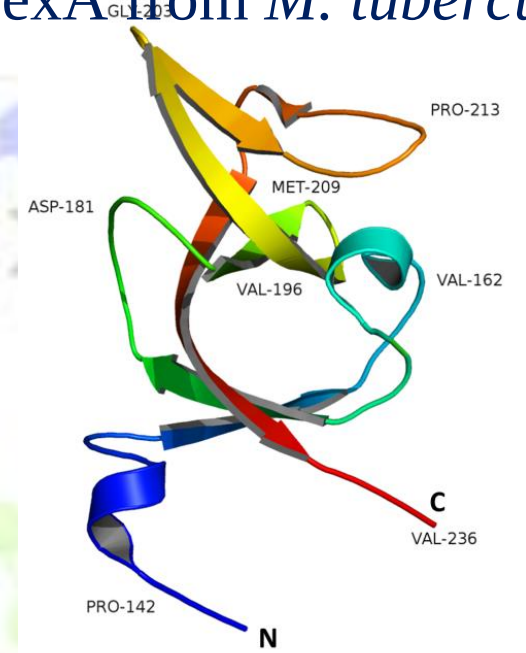
MutT2 from *M. smegmatis*



Single-stranded DNA binding protein b from *M. smegmatis*

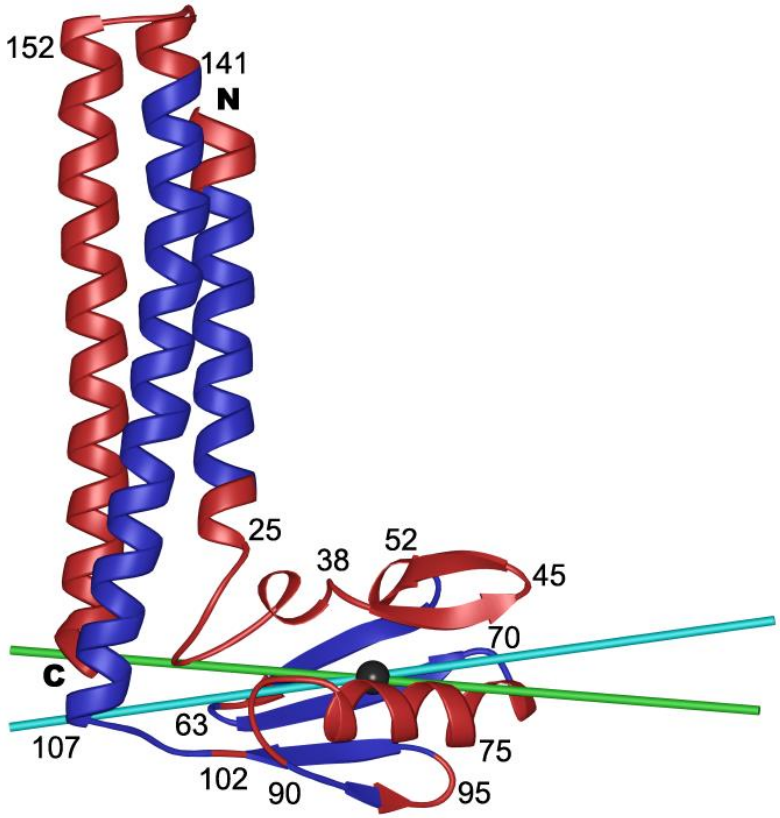


LexA from *M. tuberculosis*

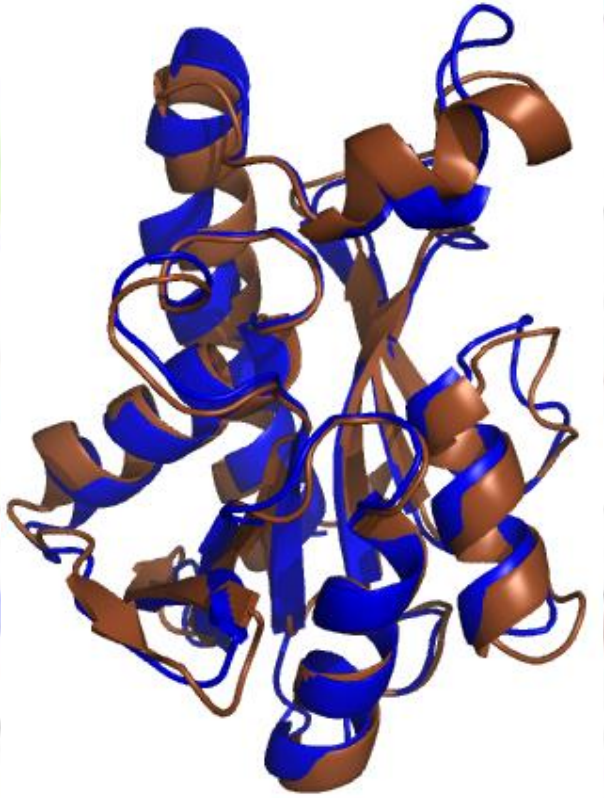


Protein Synthesis

Ribosome recycling factor from *M. tuberculosis*

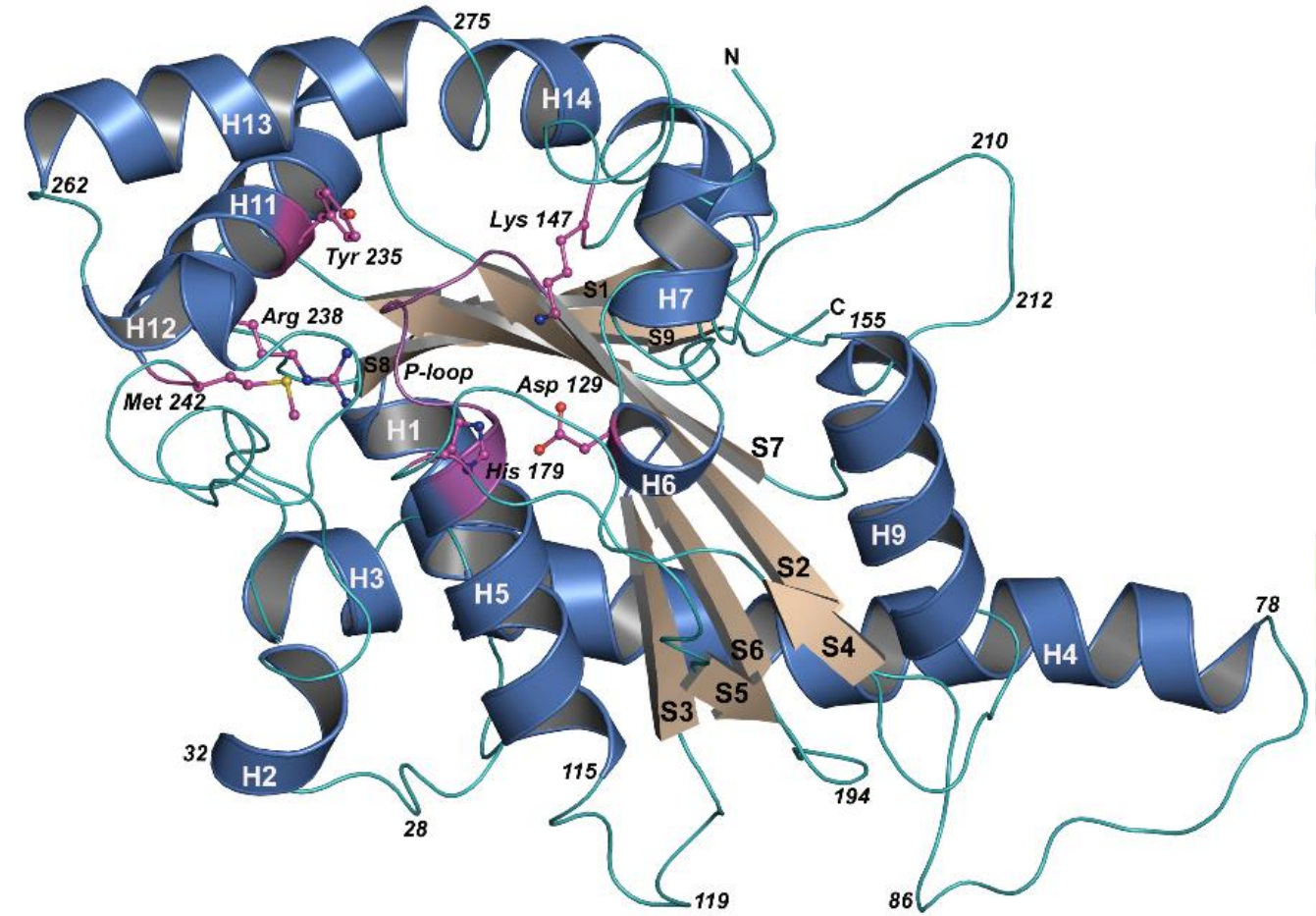


Peptidyl-tRNA hydrolase from *M. tuberculosis*



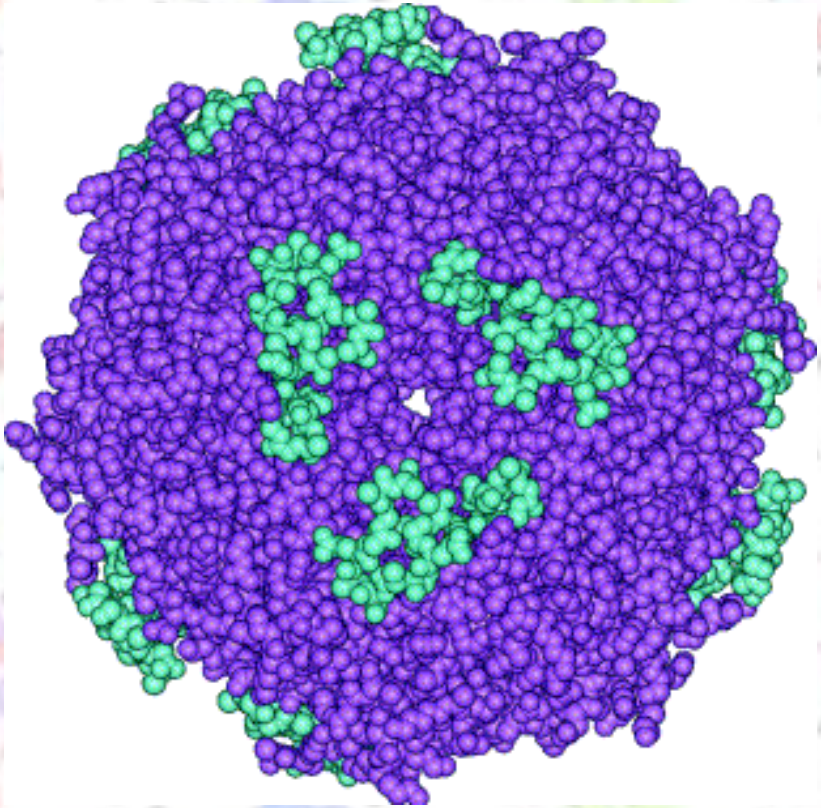
CoA synthesis

Pantothenate kinase from *M. tuberculosis*

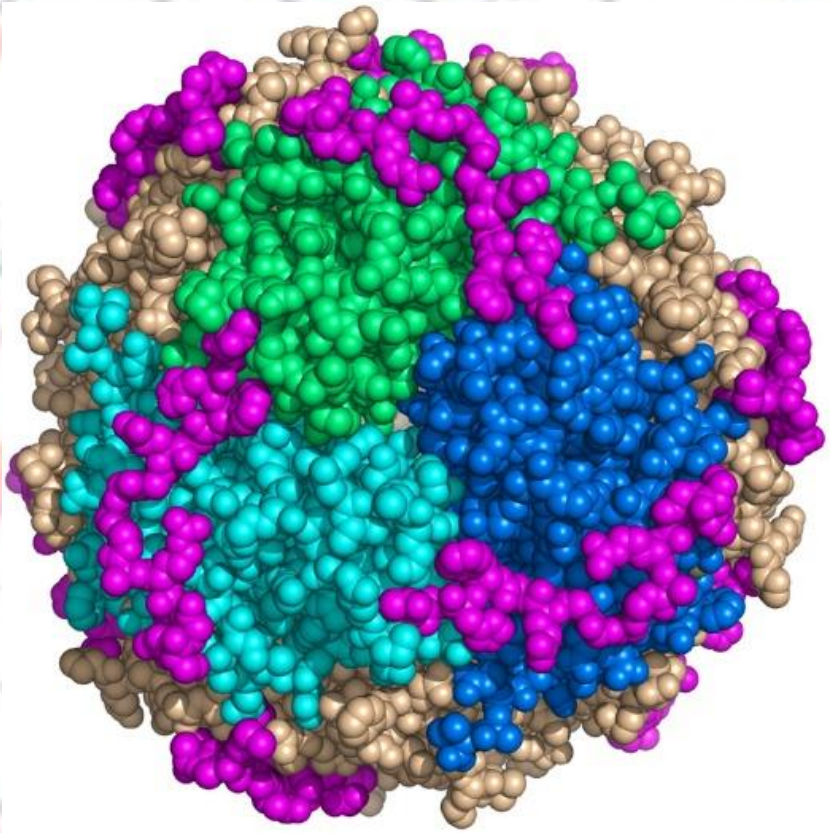


Stringent response

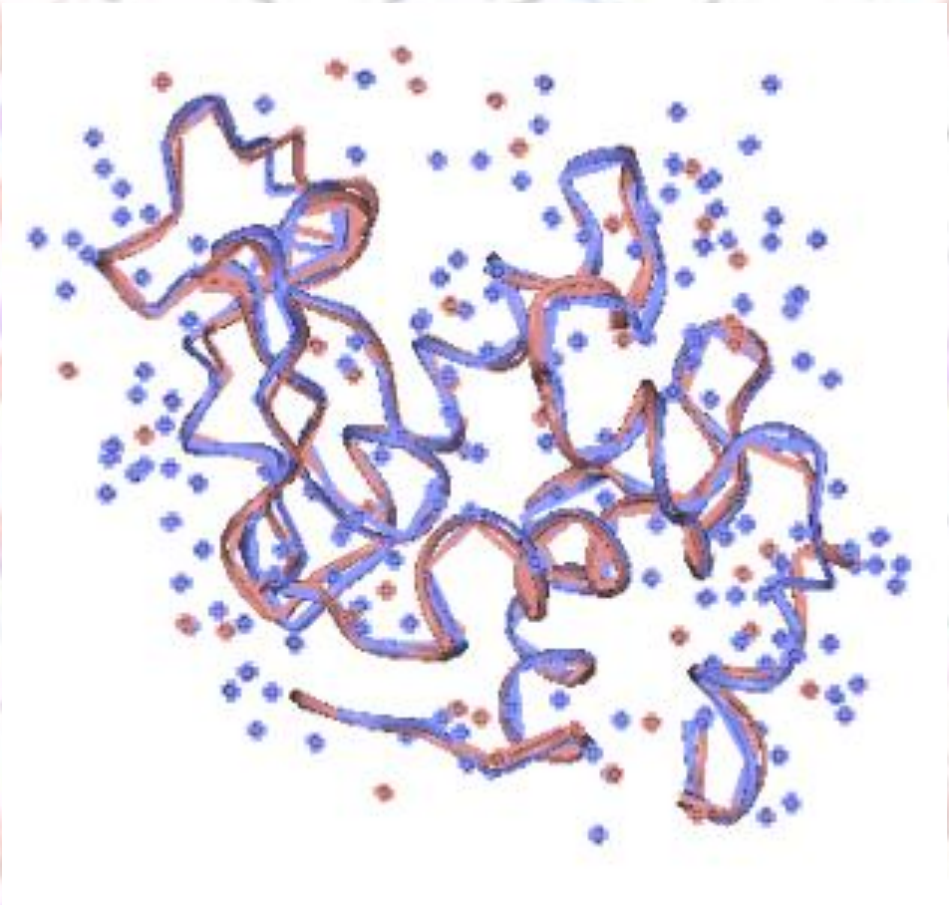
Dps-1 from *M. smegmatis*



Dps-2 from *M. smegmatis*



3. Hydration, plasticity and action of proteins



Lysozyme

Ribonuclease A

Haemoglobin

β-Lactoglobulin and their low humidity variants

4. Supramolecular association and their implications to chemical evolution and origin of life

Crystalline complexes involving L-, D- and DL- amino acids and peptides, among themselves, and with carboxylic acids.