

Docking studies of surfactant protein-D on mannose family members

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Lungs differ considerably in structure, embryological origin and function between vertebrate groups that all lungs have a few common characteristics, viz, they are internal, fluid lined, gas holding structures that inflate and deflate cyclically [1]. As a result, all lungs face potential problems related to the surface tension of the fluid as well as protection from the potential immunological attack from pathogens, allergens and pollutants.

Pulmonary surfactant is a complex mixture of 90%

lipids and 10% proteins synthesized by the alveolar type II cells and are secreted into alveolar spaces. A total of 13 types of Surfactant Protein-D were taken from the Protein Data Bank (PDB) based on the presence of the ligands, the x-ray diffraction and 1.40 – 1.90 resolution. Out of these types of Surfactant Protein-D, 2GGU was taken for docking. After docking, the mol dock score was used as binding efficiencies between the ligand molecules as well as the protein 2GGU.

Biography

I K.V.S.J.K.TEJA(Btech-Biotech) is a student of GITAM University Visakhapatnam.