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## **DENV3 envelope protein of dengue virus: A potential target for the vaccine designing**

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Dengue is arthropod-borne viral disease mainly found in Southeast Asia, the Pacific and the Americas. There are four antigenically discrete serotypes of dengue viruses (DENV1-4) each of which is competent of causing dengue fever, hemorrhagic fever and dengue shock syndrome and currently circulating in these areas. An estimated 50 million dengue infection cases occur globally with around 500,000 cases of hemorrhagic dengue and 20,000 deaths per year. In India, numbers of dengue fever cases are increasing every year. Currently, vaccines and antiviral drugs are under investigation could also make vital contribution to dengue control in the future. Hence, there is dire aspiration to develop new vaccine or drugs that are more targeted fewer lethal and more successful against this virus. Here we analyzed structural components of DENV3 envelope protein for development of homology model and prediction of their antigenic determinants. This work may contribute to effectively target and cultivate operational epitope vaccine to defend the host from the virus.

### **Biography**

Arun G Ingale has obtained his PhD in Biotechnology from Sant Gadge Baba Amravati University, India. He was the Founder, Head, Department of Biotechnology, Dr Babasaheb Ambedkar Marathwada University, India. He is President of Society for Biotechnology and Bioinformatics, India. He is also the Editor in-Chief of the *Journal of Biotechnology and Bioinformatics (JBB)* and *International Journal of Modern Biotechnology*. His primary field is immunology with research emphasis on CD antigens and the structure-function prediction using Bioinformatics approach. He has recently entered the developing field of Lectin Biosensor and Glyco-Nanobiotechnology research. In Genomics research area he has been working on constructions of transgenic Okra against pest (*Lipidopteron*) and pigeon pea against bollworm. In proteomics research area he is working on proteomics of lectin and other plant and microbial proteins. In bioinformatics, he has developed a database of CD markers and Toxin database is on completion. He has published several research papers in national and International journal of repute. He has submitted protein and nucleotide sequences on NCBI and viral protein models are being submitted in PDB database. Currently, he is holding major research projects as a Principal Investigator and Head Department of Biotechnology, North Maharashtra University, India.

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