

## Plants as an Alternate System for the Large Scale Production of Recombinant Therapeutic Proteins

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### Description

Due to the recent advancement in transient gene expression technologies in plants, a novel area called Plant Molecular Pharming has emerged. The major advantages includes cheaper, rapid, scalable and safer therapeutics are the reality, as there won't be any natural human pathogen contamination in plant produced recombinant proteins. Researchers have expressed successfully even complex proteins e.g. fully assembled immunoglobulin in plants, which have been proved to be functionally active.

However, there are still challenges to overcome that includes, difference in post translational modification and difficulties in downstream processing as plants contain millions of metabolites. Once these issues are solved, plant molecular pharming industry will become a reality and will be a big boon for the developing countries in order to produce cheaper vaccine.

