

Genetically engineered plastid for vaccine production.

Thiyagarajan K, Jayapriya J.

Department of Biotechnology, Alpha Arts and Science College, Porur, Chennai, India.

From International Conference on Biosciences- Trends in Molecular Medicine.

Post Graduate Department of Biochemistry, Dwaraka Doss Goverdhan Doss Vaishnav College, Arumbakkam, Chennai 600 106, India. 7-8 February 2012.

American J of Bio-pharm Biochem and Life Sci 2012 March, Vol. 1 (Suppl 1): P10

ABSTRACT

Chloroplasts (a type of plastids) are one of the many different types of organelles in the plant cell. In general, they are considered to have originated from cyanobacteria through endosymbiosis. Infectious diseases represent a continuously growing menace that has severe impact on health of the people worldwide. Novel prevention and treatment strategies are urgently needed to reduce the rate of these diseases in humans. Plant expression system is an alternate way to the usual microbial expression systems. Especially plastids showed positive results in the antigenic protein production from different viruses and bacteria. Here we discuss about the improvements that can be done in plastid expression system to choice of expression cassettes, use of inducible systems, marker gene removal and selection of specific antigens for manufacturing at a low cost.