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Abstract

Potent immunogenicity and lack of prolonged transgene expression have made Adenoviruses (Ad) attractive viral vectors for vaccine development. They possess a stable virion, allowing inserts of large foreign genes, they can infect many di erent cell types and the transferred information remains epichromosomal, thus avoiding the risk of insertional mutagenesis. Preclinical and clinical results conclusively showed superiority of Adenovirus-vectored genetic vaccines, based on the most common human Adenovirus serotype 5 (Ad5), for the induction of T cell response. However, pre-existing immunity to Ad5 has shown to blunt signiýcantly the immunological response induced by Ad5-vectored vaccines in rodents, non-human primates and in humans. Chimpanzee Adenoviruses (ChAd) do not cause pathological illness in humans and antibodies against them have low/no seroprevalence in the human x ɔ D . . m ʊ A ɹ MM