

This week in techniques

Approach	Summary	Licensing status	Publication and contact information
Drug platforms			
DNA vaccine against flaviviruses	A DNA vaccine that mimics live-virus infection by producing single round infectious particles (SRIPs) could offer improved efficacy and safety over current vaccines against West Nile virus and other flaviviruses. SRIPs consist of both structural and nonstructural proteins, as well as viral RNA replication products. They mimic live-virus infection and establish immunogenicity. However, with only one replication cycle, the infection is self-limiting and safe to the host. In mouse models of West Nile virus, all mice that received the two highest doses of the vaccine did not develop disease, whereas 66% of untreated controls showed signs of severe disease. Horses showed neutralizing antibody responses and cytotoxic T cell responses after a single immunization. Next steps include further improvements of the DNA vaccine vector to increase vaccine efficacy and the development of vaccines against other pathogenic flaviviruses. At least four companies have vaccines in development to treat West Nile virus.	Patent and licensing status undisclosed	Chang, D. <i>et al. Nat. Biotechnol.</i> ; published online April 20, 2008; doi:10.1038/nbt1400 Contact: Alexander Khromykh, School of Molecular and Microbial Sciences, University of Queensland, Queensland, Australia e-mail: a.khromykh@uq.edu.au