






VACCINE APPROACHES IN EARLY-PHASE DEVELOPMENT

Vaccine strategy	Trials and products	Sponsors / Developers
 <p>DNA DNA + MVA DNA + AIDSVAX</p>	<ul style="list-style-type: none"> • GeoVax DNA/MVA is being studied in a Phase I trial, +/- AIDSVAX. • Ongoing data analysis of Phase I study of PENNVAX-GP + Interleukin 12 (IL-12) DNA adjuvant. • Phase I trial testing of various DNA vaccines + a modified vaccinia Ankara (MVA-CMDR), in follow-up. 	<p>CHAVI GeoVax HVTN IPPOX Foundation MHCP NIAID</p>
 <p>Adenovirus vectors</p>	<ul style="list-style-type: none"> • Ongoing Phase I trial of oral formulation of Ad4. Phase I study of three Ad4 candidates, delivered orally and via injection, in follow-up. 	<p>HVTN PaxVax NIAID</p>
 <p>Replicating vectors</p>	<ul style="list-style-type: none"> • Ongoing data analysis of Phase I trial of recombinant vesicular stomatis virus (VSV) tested as a boost with DNA vaccine prime delivered with electroporation. • Human cytomegalovirus vector (CMV) vaccine is in development and clinical trials may start in 2018. • Replicating NYVAC vector in development and may be considered for testing in human clinical trials. 	<p>HVTN IAVI NIAID</p>
 <p>Adeno-Associated Virus</p>	<ul style="list-style-type: none"> • Recombinant AAV candidate (rAAV) encoded with PG9 bNAb being tested in Phase I study, delivered intramuscularly, in the UK. 	<p>IAVI NIAID</p>
 <p>mRNA</p>	<ul style="list-style-type: none"> • Ongoing pre-clinical work focused on mRNA-based strategies, including mRNA-encoded antibodies for HIV prevention. 	<p>CAVD CHAVI-ID NIAID</p>