

Table 1. Ebola treatments and vaccines in preclinical development

Company	Category	Product	Reference
Mapp	Mab	Three murine mAbs (13C6, 13F6 and 6D31) engineered with human constant regions targeting non-overlapping Ebola virus epitopes (the mucin-like domain as well as the 6D31 and core epitopes of GP1) manufactured in transgenic <i>N. benthamiana</i> lacking plant-specific N-glycan residues	<i>Sci. Trans. Med.</i> 5 , 199ra113 (2103)
Sarepeta Therapeutics	Antisense oligonucleotide	Piperazine-modified phosphorodiamidate morpholino antisense oligos against Ebola VP24 and VP35 transcripts	<i>Nat. Med.</i> 16 , 991–994 (2010)
MediVector	Small molecule	Avigan (favipiravir) broad spectrum 6-fluoro-3-hydroxy-2-pyrazinecarboxamide nucleoside analog inhibitor of RNA-dependent RNA polymerase (already approved in Japan against influenza)	<i>J. Antiviral Res.</i> 82 , 95–102 (2009)
BioCryst Pharmaceuticals	Small molecule	BCX-4430 adenosine analog inhibitor of RNA-dependent RNA polymerase	Julander <i>et al.</i> <i>2nd Antivirals Congress</i> , 0:14, 17:12–17:24, November 12, 2012, Cambridge, Mass., USA.

Inhibikase Therapeutics	Small molecule	IkT-001 an inhibitor of c-Abl1 tyrosine kinase that interferes with release of viruses (including Ebola) from cells	<i>Sci. Transl. Med.</i> 4 , 123ra24 (2012)
Profectus BioSciences	DNA vaccine	Prime boost combination of plasmid DNA vaccine expressing Ebola/Marburg surface antigens together with a recombinant vesicular stomatitis viral vector expressing same epitopes	<i>J. Virol.</i> 81 , 5257–5269 (2007).
Inovio Pharmaceuticals	DNA vaccine	Polyvalent synthetic consensus DNA vaccine against Marburg, Zaire Ebola and Sudan Ebola virus envelope glycoproteins codon-optimized for human cells	<i>Mol. Ther.</i> 21 , 1432–1444 (2013)
GlaxoSmithKline	Viral vaccine	Recombinant Chimpanzee adenovirus delivering non-disclosed Ebola genes	<i>Sci. Transl. Med.</i> 4 , 115ra24 (January 2012)
Johnson & Johnson	Viral vaccine	Recombinant adenoviruses 26 and 35 delivering Ebola GP1	<i>Virology</i> 85 , 4222–4233 (2011).
Bavarian Nordic	Viral vaccine	Modified vaccinia Ankara vaccine delivering non-disclosed Ebola genes	<i>Vaccine</i> 31 , 302 (2013).