



# Herpes Cures and Treatments Research Overview

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Key → HSV 1 HSV 2 HSV 1 & 2 HSV-1 Keratitis

	Research Entity and Product Name	Research Focus	Product Type	Research Phases						
				Initial Exploratory	Pre-Clinical (animals) / IND Enabling	IND Filed / Approved	Phase I (Safety)	Phase II (Safety & Dosing)	Phase III (Safety & Efficacy)	Study Completion
GENE EDIT	Fred Hutch Cancer Center (Dr. Keith Jerome & <a href="#">DONATION PAGE</a> )	Sterilizing cure	In-vivo gene-edit therapy to eliminate the latent HSV1 and HSV2 infection in sensory ganglia. Meganucleases delivered by multiple	Completed	In progress - mice & guinea pigs <b>Next update early 2022</b>		Targeting late 2023			
	Excision BioTherapeutics <b>EBT-104</b> <a href="#">WEBSITE</a>	Therapeutic	CRISPR-based gene editing therapy; Cas9 delivered by AAV or non-viral vectors to make a dual cut in the viral genome to prevent	Completed	Pre-clinical studies in progress	Plan to file for IND request in 1Q 2023 for HSV related clinical	Targeting 2Q 2023			
	Shanghai BDgene Co., Ltd <b>BD 111</b> <a href="#">WEBSITE</a>	Therapeutic / Sterilizing cure	CRISPR-based gene editing cure to treat refractory HSV1 keratitis (i.e., corneal infection) of the eyes	Completed	Completed	Completed	Began Phase I/II trial Nov 2020; Expecting primary completion Nov 2021 <a href="#">LINK</a>			Estimated May 2022
	Shanghai BDgene Co., Ltd <a href="#">WEBSITE</a>	Therapeutic / Sterilizing cure	HSV2 therapy based on their proprietary mRNA gene edit, as BD111	Completed	Pre-clinical studies in progress					
VACCINES	Sanofi Pasteur <b>HSV-529 (SP0148 on their pipeline)</b> <a href="#">WEBSITE</a>	Therapeutic Vaccine	Replication defective vaccine	Completed	Completed	Completed	Completed the 1st in 2018 and the 2nd in May 2021	WILL BE TERMINATING THEIR HSV RESEARCH		
	Sanofi Pasteur & Immune Design/Merck <b>C-102</b>	Therapeutic Vaccine	Sub-unit vaccine (purified antigen)	Completed	Completed	Completed	Combined into the 2nd HSV-529			
	Redbiotech (two candidates: <b>RBT-3 &amp; RBT-25</b> ) <a href="#">WEBSITE</a>	Therapeutic Vaccine	Sub-unit vaccine (T-cell based antigen engineering)	Completed	Completed guinea pig trials	Status unknown				
	Rational Vaccines <b>RVx-201</b> <a href="#">WEBSITE</a>	Therapeutic Vaccine	Live attenuated (weakened) virus vaccine	Completed	Completed	Late 2021 (US trials) <a href="#">LINK</a>	Estimated 2022			
	Rational Vaccines <b>RVx-2001</b>	Prophylactic vaccine	Live attenuated (weakened) virus vaccine	Completed	In progress	Targeting late 2021 for filing				
	Rational Vaccines <b>RVx-1001</b>	Prophylactic vaccine	Live attenuated (weakened) virus vaccine	Completed	In progress	Targeting late 2022 for filing				
	X-Vax Technology <b>Delta gD-2 vaccine</b> <a href="#">WEBSITE</a>	Prophylactic vaccine (therapeutic in investigation)	Vaccine with HSV2 genetically deleted for Glycoprotein-D	Completed	Completed trials in mice & guinea pigs	In progress	Expected 2022			
	UPenn & BioNTech Collaboration led by Dr. Harvey Friedman <a href="#">DONATION PAGE</a>	Prophylactic vaccine	mRNA vaccine	Completed	Completed in mice (HSV 1&2) and guinea pigs (HSV-2)	In progress	Expected July 2022			
	UPenn led by Dr. Harvey Friedman	Therapeutic vaccine	mRNA vaccine	In progress						
	Blue Willow <b>NE HSV-2</b> <a href="#">WEBSITE</a>	Prophylactic and Therapeutic vaccine	Intranasal vaccine using nanoemulsion adjuvant	Completed	In progress					
ANTIVIRALS & OTHER THERAPIES	Squarex <b>SADBE</b> <a href="#">WEBSITE</a>	Topical immunosensitizer	Topical immunomodulator applied on inner upper arm (currently used to treat HPV)	Completed	Completed	Completed	Completed	Completed	Fundraising to support Phase III trials.	
	United BioPharma <b>UB - 621</b> <a href="#">WEBSITE</a>	Monoclonal antibody	Subcutaneous injection	Completed	Completed	Completed	Completed	In progress - not yet recruiting <a href="#">LINK</a>		
	Heidelberg ImmunoTherapeutics <b>HDIT101</b> <a href="#">WEBSITE</a>	Monoclonal antibody	Intravenous infusion	Completed	Completed	Completed	Completed	Estimated completion Sept 2021 <a href="#">LINK</a>		
	Heidelberg ImmunoTherapeutics <b>HDIT101</b>	Monoclonal antibody	Topical formulation for orolabial lesions	Completed	Completed	Completed	Completed	In progress w/ estimated primary completion Oct 2022 <a href="#">LINK</a>		Estimated Oct 2023
	AiCuris <b>Pritelivir (AIC316)</b> <a href="#">WEBSITE</a>	Antiviral	HSV Helicase-Primase inhibitor	Completed	Completed	Completed	Completed	Completed - immunocompromised	In progress w/ estimated completion Nov 2023 <a href="#">LINK</a>	Estimated Mar 2024 <a href="#">LINK</a>
	Innovative Molecules <b>IM 250</b> <a href="#">WEBSITE</a>	Antiviral	HSV Helicase-Primase inhibitor	Completed	In progress					