

Pipeline dataset for MERS-CoV

Vaccine concept and antigen	Product developers / funders	Preclinical	Phase I	Phase II
Full length S (GLS-5300)	GeneOne Life Sciences, South Korea Inovio Pharmaceuticals Walter Reed Army Institute of Research (WRAIR), USA International Vaccine Institute		NCT02670187	
MVA-MERS-S	Academic collaboration: Ludwig Maximilian University of Munich, Germany - Dutch German Academic Consortium led by Ludwig-Maximilians Universität, Munich, with Erasmus University Rotterdam, the Netherlands; University of Marburg, Marburg, Germany		Moving to phase I	
ChAd 5 S protein	Jenner Institute, University of Oxford, UK		Moving to phase I	
Recombinant MERS-CoV spike S1 DNA prime-S1 protein boost	Universidad Autonoma de Madrid, Spain National Institute of Allergy and Infectious Diseases (NIAID), Vaccine Research Center, USA			
Oral administration of MERS peptides and proteins	Proxima Concepts Limited			
RBD fused with human Fc/ Mersmab1	New York Blood Center, USA Fudan University, China; Shanghai Medical College, Shanghai, China			
MERS-CoV rRBD	National Institute for Viral Disease Control and Prevention, China CDC; Peking Union Medical Collage (PUMC), Key Laboratory of Human Disease Comparative Medicine, Ministry of Health; Institute of Microbiology, Chinese Academy of Sciences, Beijing; Hebei Medical University, Shijiazhuang, China			
Full length S trimers/ nanoparticle	Novavax, USA			
Truncated RBD	Chinese CDC, China			
RABV-MERS Spike protein	NIAID, USA			
Ad5 S	Greffex, USA			
Ad5 S or S1	Chinese CDC, China			
Measles S	Paul Ehrlich Institute, Germany			

DNA spike protein vaccine	University of Pennsylvania, National Institutes of Health, University of Manitoba and Public Health Agency of Canada, Inovio Pharmaceuticals, University of Washington, University of South Florida Morsani College of Medicine			
MERS-CoV VLPs produced in insect cells	Northeast Forestry University; Academy of Military Medical Sciences; Shandong University; Jiangsu Co-innovation Center for Prevention and Control of Important Animal Infectious Diseases and Zoonoses			
gamma-irradiated inactivated vaccine	University of Texas Medical Branch, Galveston, TX, USA; Jazan University			
Venezuelan equine encephalitis replicons (VRP) expressing nucleocapsid proteins	The First Affiliated Hospital of Guangzhou Medical University; University of Iowa; University of North Carolina; Mayo Clinic			
VRP expressing spike protein	University of Iowa; University of North Carolina at Chapel Hill; University of Washington School of Medicine; Universidad Autónoma de Madrid; Loyola University Medical Center			

This pipeline reflects, to the best of our knowledge as at July 2017, publicly available information on the status of vaccine candidates with a direction towards human use for MERS-CoV.