



Treating and Preventing Zika Virus Infection

TREATING ZIKA VIRUS IN ALL INDIVIDUALS REGARDLESS OF FLAVIVIRUS EXPOSURE

Zika virus (ZIKV) is an emerging pandemic disease, particularly in Central and South America. Most often transmitted by mosquitoes, ZIKV infection can lead to congenital and neurological complications such as microcephaly and Guillain-Barre syndrome. ZIKV infections typically occur in travelers with no prior exposure to a flavivirus—the genus of RNA viruses that includes dengue, West Nile, and yellow fever. Currently, there are no approved treatments for ZIKV or dengue virus (DENV) infections, underlining the need for approved preventative and therapeutic options.

NEUTRALIZING ANTIBODIES

Researchers at HJF and collaborators have identified several monoclonal antibodies (mAbs) with a wide-range of capabilities to precisely neutralize ZIKV or potentially cross-neutralize ZIKV and DENV. The novel mAbs can be used alone or as portions of antibodies for the prevention and treatment of ZIKV and DENV infections, even in individuals with no prior flavivirus exposure. Further applications of these monoclonal antibody treatments include diagnostic and vaccine manufacturing tools. The monoclonal antibodies can also be used in clinical and diagnostic assays, as well as further antibody-based research.



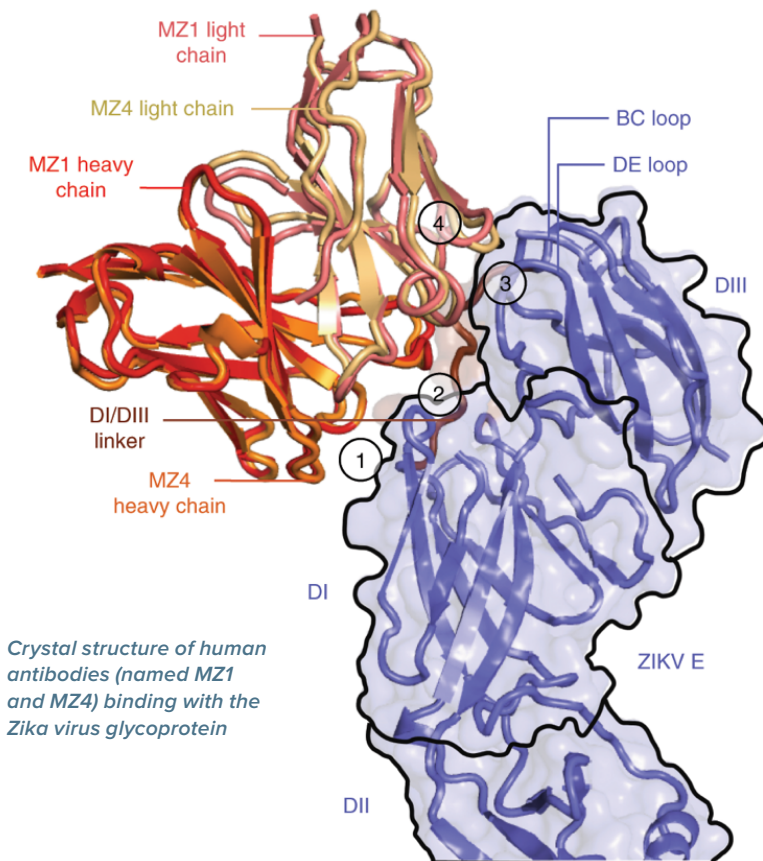
APPLICATIONS

- Antibody-based flavivirus therapies
- Antibody-based prophylactic delivery providing immediate long-term protection
- Flavivirus diagnostic methods

SOLUTION ADVANTAGES

This novel solution offers a more targeted, robust, and sophisticated approach to treat and manage ZIKV and DENV infections. The mAbs developed against ZIKV and DENV will be highly useful in regions of the world where flaviviruses are widespread and will also benefit U.S. travelers to flavivirus endemic areas that are vulnerable with respect to their public health consequences.

- **Precise:** Offers option of mAbs capable of potent, specific ZIKV or ZIKV and DENV cross-neutralization without reactivity to other flaviviruses
- **Refined:** Demonstrated conformational binding to Zika and dengue virus particles and protection against Zika and dengue infection in animal studies
- **Pragmatic:** Reduces risk of Zika virus contraction and subsequent complications in U.S. travelers with no prior flavivirus exposure
- **Widespread impact:** Advances prevention, diagnostic, and treatment efforts for flaviviruses in humans



DEVELOPMENT STATUS

Preclinical proof of concept

PATENT STATUS

Patent pending

LICENSING OPPORTUNITIES

HJF is seeking development partners and/or licensees for this technology.

CONTACT INFORMATION

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TRACK CODE

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