



**Uniformed Services University**  
*of the Health Sciences*  
4301 Jones Bridge Road  
Bethesda, MD 20814-4799

Release No.07-10-42

October 22, 2007

**Contact:** Office of External Affairs

**Voice:** 301-295-1219 Fax: 301-295-3757

**Email:** [anicholson@usuhs.mil](mailto:anicholson@usuhs.mil)

## News Release

---

### **USU Researchers Demonstrate Novel Strategy to Inactivate Encephalitis Virus**

**BETHESDA, Md.** — A collaborative team of scientists from the Uniformed Services University of the Health Sciences (USU) and the National Cancer Institute (NCI) have developed a novel strategy to inactivate highly virulent Venezuelan equine encephalitis virus (VEEV) that can infect and kill both animals and humans.

In an article published in *Biochem Biophys Res Commun*, April 26, 2007, Dr. Radha Maheshwari, professor of Pathology at USU, along with graduate student Anuj Sharma, reported the novel approach to inactivate VEEV. VEEV has been identified as an emerging infectious disease and has been developed as a bio-warfare agent and may be a potential biological terror agent.

The current study has important implications for the development of efficient VEEV vaccine. The results show that complete inactivation of VEEV can be achieved using a novel molecule that can penetrate into the virus envelope and target the virus envelope proteins that are vital for initiation of virus infection of the host cell. This inactivation of the virus is achieved while maintaining the integrity of the virus which is vital towards development of a vaccine against any virus. This study has significant implications as this novel strategy of inactivation may be used for a large number of enveloped viruses of military and civilian importance.

There is no specific therapy for the treatment of VEEV infection or *togaviruses* as such and there is currently no FDA approved vaccine for VEEV prophylaxis. The current experimental vaccine which is under investigational new drug status, has limited use due to non-responders and residual virulence.

Located on the grounds of Bethesda's National Naval Medical Center and across from the National Institutes of Health in Bethesda, Md, USU is the nation's federal school of medicine and graduate school of nursing. Students are active-duty uniformed officers in the Air Force, Army, Navy, and Public Health Service, who are being educated to deal with wartime casualties, national disasters, emerging infectious diseases, and other public health emergencies. The university conducts sponsored research in the combined sciences, including military-relevant research in parasitology, infectious diseases, treatment of traumatic injury, and other issues related to health, war, and national disaster.

For more information or to receive a copy of Dr. Maheshwari's complete article contact the Office of External Affairs at (301) 296-3981.