Case #700

Highly Specific and Neutralizing Therapeutic Antibodies for Zika Virus

Zika virus, a member of the Flaviviridae virus family, is a single stranded positive sense RNA virus that is spread by Aedes mosquitoes. While it was previously contained to regions of Africa and Asia along a narrow equatorial belt, it has recently spread to areas of the Americas. In adults, Zika virus infection can lead to Guillain-Barre syndrome and fetuses in utero are especially susceptible to Zika virus infections, causing thousands of birth defects and miscarriages.

Researchers at UVM and UNC have identified two highly specific and neutralizing antibodies isolated from a traveler naïve to all serotypes of Dangue. The antibodies (A9E and G9E) can be used against 7 different Zika virus types and react only to Zika virus and no other flaviviruses.

Applications:
- Diagnosis and treatment of Zika virus infection.
- Antibody sequences for vaccine development.

Advantages:
- Non-reactive to Dangue and other flaviviruses.
- Fully characterized binding site.
- More potent and highly specific than currently available Ziki antibodies.

Intellectual Property and Development Status:
Ready for research and development collaboration and licensing.

Inventors:
Sean Diehl
Aravinda de Silva
Matthew Collins
Ben McElvany

Contact Information:
Kerry Elizabeth Swift
Technology Licensing Officer
Kerry.Swift@med.uvm.edu
802-656-8780