**CYTOTOXIC T-LYMPHOCYTE-INDUCING IMMUNOGENS FOR PREVENTION, TREATMENT, AND DIAGNOSIS OF DENGUE VIRUS INFECTION**

Dengue Fever (DF) and Dengue Hemorrhagic Fever (DHR) are significant global public health problems and understanding the overall immune response to infection will contribute to appropriate management of the disease and its potentially severe complications. Live attenuated and subunit vaccine candidates, which are under clinical evaluation, induce primarily an antibody response to the virus and minimal cross-reactive T cell responses. Currently, there are no available tools to assess protective T cell responses during infection or post vaccination. The disclosure incorporates immunoproteomics to uncover novel HLA-A2 specific epitopes derived from Dengue Virus (DV)- infected cells. These epitopes are conserved with epitope-specific CTLs cross-reacting against all four DV serotypes. These epitopes have potential as new informational and diagnostic tools to characterize T cell immunity in Dengue virus (DV) infection, and serves as a universal vaccine candidate complementary to current vaccines.

**Figure 1**