



City of Coral Gables
CITY COMMISSION MEETING
September 28, 2016

ITEM TITLE:

A Resolution urging Governor Rick Scott and the Florida Department of Health to implement an alternative testing method for detecting and treating the Zika virus.

BRIEF HISTORY:

On February 3, 2016 Florida Governor Rick Scott declared a public health emergency in Miami-Dade County due to a single Zika Virus Diagnosis. Since the Governor's initial declaration, the Florida Department of Health has confirmed 301 cases of Zika in Miami-Dade County, 82 of which have been locally-transmitted (as of September 20, 2016).

The Zika Virus has been known to cause fever, rashes, joint pain, conjunctivitis and has been linked to serious birth defects in pregnant women, including microcephaly. It has also become apparent that Zika may persist for longer periods of time in fluids such as urine and semen (6 months or more), and there have been reports of sexual transmission of infection weeks after the initial infection in an index patient. Thus, the ability to quickly diagnose the infection in different body fluids is critical for transmission prevention and for reproductive health decisions.

The current testing method is based on relatively expensive real-time quantitative PCR (RT-qPCR) techniques that require shipment of samples to central laboratories with turnaround times of several days to weeks, and is a challenging model, particularly in the resource-limited settings that are hardest hit by Zika.

Dr. Mario Stevenson and Dr. Mark Sharkey of the University of Miami, have developed a rapid, cost effective, point-of-care assay, that is suitable even in resource-limited settings. The merits of their assay compared to the currently available options are as follows: Use of a novel enzyme with both RNA-dependent and DNA-dependent polymerase activities with the capability to amplify ZIKV RNA directly from clinical samples without RNA purification and with exquisite sensitivity (single copy) and specificity; Use of standard PCR equipment available in most regional hospitals and not expensive as opposed to complex RT-qPCR that requires extensive operator experience; and Immediate visualization of amplification products through the use of a fluorescent probe and an inexpensive, handheld blue light.

APPROVED BY:

Department Director	City Attorney	City Manager
		

Attachments

- 1. Draft Resolution**
- 2. Summary of Dr. Mario Stevenson's and Dr. Mark Sharkey's Zika Virus Assay**