1155-92-476 **Michael A Robert*** (m.robert@usciences.edu), 600 S 43rd St, Philadelphia, PA 19104, **Rachel J Sippy**, Gainseville, FL, **Anna M Stewart-Ibarra**, Montevideo, Uruguay, **Rebecca C Christofferson**, Baton Rouge, LA, **Helen J Wearing**, Albuquerque, NM , and **Elizabet L Estallo**, Cordoba, Argentina. *Modeling meteorological influences on emergence of dengue in the temperate city of Cordoba, Argentina.* Preliminary report.

Dengue, a tropical virus transmitted by the mosquito species *Aedes aegypti*, has been spreading to populations in temperate regions across the globe. This spread has been driven by numerous factors including higher temperatures and more erratic precipitation patterns caused by global climate change. Temperature and/or precipitation impact various parts of the dengue transmission cycle, including mosquito development and survival and the incubation period of the virus in the mosquito, and with the continuing threat of climate change, it is critical that we develop a better understanding of meteorological influences on the spread of dengue. In this work, we expand a classic vector-host epidemiological ordinary differential equations model to include seasonal impacts of temperature and precipitation to investigate the potential impacts of each on dengue transmission in temperate regions. We specifically investigate the influence of climate on recent dengue emergence in the city of Córdoba, Argentina, which experienced its first dengue outbreak in 2009 and has since experienced yearly transmission and three other large outbreaks. We discuss the potential implications of our results for dengue mitigation strategies in Córdoba and other temperate cities. (Received January 20, 2020)