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Emily G. Burkhead*, 3800 Hillsborough Street, Raleigh, NC 27607, and **Jane M. Hawkins**
and **Donna K. Molinek**. *A Dynamical Study of a Cellular Automata Model of the Spread of HIV
in a Lymph Node.*

We conduct a mathematical study of a cellular automata model of the spread of the HIV virus in a lymph node. The model was proposed by Zorzenon dos Santos and Coutinho and captures the unique time scale of the viral spread. We give some rigorous mathematical results about the time scales and other dynamical aspects of the model as well as discuss parameter and model changes and their consequences. (Received August 25, 2008)