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Reginald L McGee* (mcgee3@purdue.edu), 150 N. University St, West Lafayette, IN 47907-2067, and **Mariya O. Krisenko, Robert L. Geahlen, Ann E. Rundell and Gregory T. Buzzard.** *A Computational Study of the Effects of Syk Activity on B Cell Receptor Signaling Dynamics.*

The kinase Syk is intricately involved in early signaling events in B cells and is required for proper response when antigens bind to B cell receptors (BCRs). Experiments using analog-sensitive versions of Syk (Syk-AQL) have better elucidated its role, but have not completely characterized its behavior. We present a computational model for BCR signaling, using dynamical systems, which incorporates both wild-type Syk and Syk-AQL. We investigate how manipulation of Syk-AQL can be used to modulate the downstream response associated with BCR stimulation. (Received September 16, 2014)