Talitha M Washington* (talitha.washington@howard.edu), 2441 Sixth Street NW, Washington, DC 20059. *Understading Calcium Regulation Via Mathematical Modeling*. Preliminary report.

The body has many processes that are synchronized to maintain a specific level of calcium. This regulatory mechanism, calcium homeostasis, provides the necessary mechanism for proper signalling to occur at the cellular level. Muscle contractions, skeletal structure, as well as a variety of signalling pathways need calcium so that proper functions can be accomplished. In this talk, we discuss a preliminary mathematical model of this regulatory mechanism. (Received August 20, 2013)