Pengcheng Xiao\* (pxiao4@kennesaw.edu), 850 Polytechnic Lane, D 204, MD 9085, Marietta, GA 30060. Long term stress hormones modeling and application.

In this talk, we propose a mathematical model for the stress reaction system Hypothalamic-Pituitary-Adrenal (HPA) axis to address the long term stress hormones secretion within the timescale of weeks. Applications related to neural plasticity with patients with chronic depression and PTSD will be discussed. (Received August 31, 2020)