1106-VI-2512 **Bhikhari P. Tharu***, bhikhari@mail.usf.edu, **Ram C. Kafle**, rckafle@shsu.edu, and **Chris P. Tsokos**, ctsokos@usf.edu. *Modeling Lung Cancer Mortality Using Bayesian Analysis.*

Lung cancer is the leading cause of cancer death in the US where cancer remains the second most common cause of death. In this study, we aim to develop time trends of lung cancer mortality in the US for periods 1970-2010 for age groups 20-84 years through age-period-cohort (APC) model. Bayesian age drift model has been used to describe the trends. Second order random walk methods have been adapted to smooth the data. The proposed model will give an estimate of the rate of change of mortality due to lung cancer in the US. The data set is obtained from the Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute (NCI). (Received September 16, 2014)