

1116-VM-2841 **Qing Wang*** (qwang@shepherd.edu), **Zhijun Wang** and **David J Klinke**. *Tumor Control Strategies for a Mixed Immuno-Chemotherapy via Impulsive Control.*

In this study, we developed a multi-scale impulsive ODE model to describe the effect of a chemotherapy agent Oxaliplatin in combination with Interleukin-12 treatment on pre-existing liver metastatic colorectal cancer in mice. Model parameters were calibrated to published experimental data. Criteria on stabilization of the tumor-free equilibrium were established via impulsive control. Treatment strategies to control tumor growth for the mixed immuno-chemotherapy were discussed based on impulsive stabilization results. This research has been supported by the NIGMS of the NIH grant as part of the WV-INBRE (P20GM103434). (Received September 22, 2015)