1107-92-467 **Irina Kareva** and **Faina Berezovskaya*** (fberezovskaya@howard.edu), Washington, DC 20059. *Predator-prey-shared resource model in tumor-immune interactions.*

In the tumor microenvironment there must exist competition for the common resources between cancer cells and the cells of the immune system, which may drive a lot of the tumor-immune dynamics. Proposed here is a model of tumor-immune-glucose interactions, formulated as a predator-prey-common resource type system, which allows to investigate possible dynamical behaviors that may arise as a result of competition for glucose, including tumor elimination, tumor dormancy and unrestrained tumor growth. The model is then reduced to a predator-prey type model, and a full bifurcation analysis is performed to establish a sequence of regimes that can occur as predator (immune system) and prey (cancer cells) compete for shared resources that are necessary for survival of both. (Received January 20, 2015)