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Tuan A Phan* (tuanpa86@nmsu.edu), New Mexico State University, Department of Mathematical Sciences, 1290 Frenger Mall, MSC 3MB / Science Hall 236, Las Cruces, NM 88003-8001, and **Jianjun P Tian**. *A basic model of stochastic type for tumor virotherapy.*

In this paper, we propose a common basic model of stochastic type for oncolytic viral therapy that is able to predict the success of viral treatment based on the burst size of free virus particles and noise intensities. We found a threshold that provides a sufficient and almost necessary condition for the extinction and persistence of the stochastic model. This threshold gives a complete classification for the model. Numerical simulations are also carried out to demonstrate our results. (Received September 10, 2019)