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Abstract: Mathematical models are finding increased use in biology, and particularly in the field of cancer research. In relation to cancer, systems of differential equations have been proven to model tumor growth for many types of cancer while taking into account one or many features of tumor growth. One feature of tumor growth that models must take into account is that tumors do not grow exponentially. One model that embodies this feature is the Gompertz Model of Cell Growth. By fitting this model to long term breast cancer study data, this project ascertains gompertzian parameters that can be used to predicts tumor growth as a function of time.

Keywords: Gompertz, tumor, fitting, parameter