Review of: "The Stay-Or-Leave Dilemma of Cells in Punctuated Tumors"

Manuel Doblare[1]

1 Universidad de Zaragoza

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This paper describes a very well-known paradigm in tumor development, as it is the go or growth model. This theory assumes that cells stay and proliferate under favorable conditions (usually at the border of the tumor), while those under hypoxia or low-nutrient provision (inside the necrotic core of the tumor) die, or, if possible, phenotypically adapt to that harsh microenvironment, or go away “looking for” better conditions. This last cell migration may be one of the mechanisms for metastasis, as commented by the authors.

Despite the huge number of references on this well-known behavior, only a couple of them are included in this review, being therefore insufficient. For example, none is cited regarding mathematical models of the go or growth approach (see, for example, Stepien TL, Rutter EM, Kuang Y. Traveling waves of a go-or-grow model of glioma growth. SIAM Journal on Applied Mathematics. 2018;78(3):1778–1801). The introduction of the phenomenon is also poor.