MAR17-2016-020405

Abstract for an Invited Paper
for the MAR17 Meeting of
the American Physical Society

Attacking cancer dormacy using game theory

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Here is the problem: Cancer kills primarily by re-emergence from a period of dormancy after initial treatment. The presence of driver mutations and subsequent clonal expansion by Darwinian evolution does not explain dormancy and re-emergence of cancer from a community of cancer and host cells (including stromal and immune cells), nor does it explain our inability to predict the emergence of metastasis, by far the real killer in cancer. Dormancy appears to be a slow-driven, multi-cell interaction-dominated, threshold system with a poor prognosis once the cancer emerges from dormancy. The mission here is to try and model the phenomena of dormancy using game theory ideas, and in *an in vitro* complex ecology designed to emulate the true complexity of an *in vivo tumor*.