

Endogenous Heterogeneity and Organizational Learning in Cancer Research Centers' Innovation Strategy

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The purpose of this study is to explore the heterogeneity in cancer research centers' innovation strategies, as they learn from the experience of their clinical trials and build capabilities. The significance of the problem is undeniable, as cancer persists as a leading cause of suffering and loss, despite repeatedly reignited national and global efforts and investments in addressing the problem. There is strong evidence demonstrating the saturation of return on investment in cancer research, as well as increasingly diverging innovation strategies among cancer research centers. In this research, we focus on the research centers' dilemma to start exploratory trials for new drug/treatments or invest in clinical trials to acquire FDA approvals for drugs/treatments that have already passed exploratory phases. The system dynamics model for the process of passing through clinical trial phases closely resembles the classic dynamic/operational capabilities model. We use the SD model to develop hypotheses that we test using the extensive clinical trials data. The results show that success/failure in previous trials affect the explorative tendencies of cancer research centers. Also, research centers that conduct either of the explorative or FDA trials more often develop capabilities that impact their future emphasis on exploration, resulting in endogenous heterogeneity.

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