Cancer as an ecological process

Tumours are microcosms of evolution. Within a them, a plethora of mutant cells compete for space and resources, strive for evasion of predation by the immune system, and can even cooperate to disperse and colonize new organs. The evolution of neoplastic cells explains both why we get cancer and why it has been so difficult to cure. For some years now, the tools of ecology are providing new insights into cancer progression and its clinical control. In these lectures, I will review some of the current progress of ecological models of cancer.