

Novel studies of cancer cells heterogeneity

Saturday 2 December 2023 09:30 (45 minutes)

The phenomenon of cellular heterogeneity - the presence of diverse subpopulations in the cell lines cultures - is the subject of many recent studies. This effect is especially pronounced in the cancer cells populations which, in turn, can influence the outcome of anticancer therapies. It is postulated that heterogeneity is the result of long term evolution of cell types. However, heterogeneity also can be seen in the short term changes in the properties of cell populations. Here, it will be shown that the heterogeneity is a highly dynamic event and that it depends on mechanical properties of cellular microenvironment in the case of migrating WC256 Walker carcinosarcoma cells. This can help to understand a dynamics of cancer cells behavior which in turn may improve cancer therapies.

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Session Classification: Patterns in Biology