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On the Linkage Between CMAC Age and its Morphological and Biological Features

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Abstract

As metastasis is the primary cause of cancer lethality, understanding cell migration and cell adhesion plays a major roll in unraveling the mechanisms underlying cancer progression. In the laboratory of Staffan Strömblad at Karolinska Institutet, the coordinating unit of a EU network of excellence, researchers use a combination of advanced experimental setups, fluorescence microscopy and quantitative statistical analysis to investigate the systems of cell migration. As the behavior of cancer cells is partly affected by cell-matrix adhesion complexes (CMACs), attachments to the extracellular matrix, in this thesis we investigate the possibility of describing the relation between the age of a CMAC and a number of related features. Our findings demonstrate varying degrees of dependence due to the treatments used on the cellular level and due to the grouping of CMACs.

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