

Modelling Of Cell Population Dynamics Based On Adhesive Protein Networks

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Abstract

We consider a model for a population of cells subject to adhesive interaction due to protein complexes present in the cells' membranes. A theoretical framework is proposed both for the analysis and prediction of patterns responsible for the adhesion. On the basis of experimental observation we have constructed an asynchronous cellular automaton (CA) model that simulates protein network dynamics in a population of cells.