

**EXPERIMENTAL ESTIMATION OF FIBROBLASTS
FORCED DEFORMATIONS INVARIANT**

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Volume is theoretical invariant for biomechanical model of living cell deformations in accordance with water incompressibility. But folded structure of cell membrane and surface biopolymers net in glycocalyx can result in discrepancy between visible picture of cell deformations and one's, predetermine by constant volume concept.

In order to understand contribution of different factors in cell biomechanics we investigated forced deformation geometry of normal and transformed mouse fibroblasts with using of micropipette aspiration technique. Measurements are done on cells in initial attachment phase and have spherical form. Real parameters of cells deformations compared with theoretical values, estimated on the basis of constant volume and constant surface area models.

Wide data spacing in whole cell aspiration experiments prevented from any conclusions about fibroblasts deformation invariant for both type of cells. Step by step aspiration experiments was more informative and show, that constant volume model is most adequate to describe forced fibroblast deformation.