MATHEMATICAL MODELING OF WOUND HEALING AND EPITHELIAL REPAIR

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Abstract

We will describe on epithelial wound healing in drosophila pupae and some more recent work on gap closure in monolayers of MDCK cells or keratinocytes. These works concern mathematical modeling of the contraction of actomyosin cables and/or lamellipodal crawling. We are particularly interested in the influence of the wound geometry and the adhesion to the substrate on the closure mechanism.