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Mechanism of cell alignment in *Myxococcus xanthus* groups

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ABSTRACT

This is predicted as a constitutive feature of a new multiphysics/mechanical model for such systems, which will be presented in this communications. In particular, the density of active receptors, the thickness changes, and the conformational changes are shown to be determined by the interplay between the work done by the lateral pressure surrounding the transmembrane domains and the surrounding lipids and the conformational energy of such domains. This competition is shown to constitutively trigger higher active receptor density regions on lipid rafts.