Supplementary material for “Non-uniform distribution of myosin-mediated forces governs red blood cell membrane curvature through tension modulation”

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Figure S8: For intermediate membrane tension (Tension = $10^{-3}$ pN/nm), deviation of the applied forces from normal ($\phi = 90^0$) to the tangential orientation ($\phi = 0$) results in the formation of pancake-shaped geometries with large shape error. The Heat maps show the total error in the shape of the simulated RBCs for a range of force densities in the dimple and rim regions. (A) The applied forces are assumed to be normal ($\phi = 90^0$). (B) The applied forces make angle $\phi = 60^0$ with the tangent vector $a_s$. (C) The applied forces make angle $\phi = 45^0$ with the tangent vector $a_s$. (D) The applied forces make angle $\phi = 30^0$ with the tangent vector $a_s$. (E) The applied forces are tangent to the membrane surface ($\phi = 0$). In each heat map, the point with the minimum error is marked with ‘X’. Also, for each marked point, the volume of the simulated RBC ($V$) is calculated and the shape (solid yellow line) is shown in comparison with the reference parametric.