Electronic Supplementary Material (ESI) for Analyst.

[Supporting Information]

Monitoring Dynamic Spiculation in Red Blood Cells with Scanning Ion Conductance Microscopy

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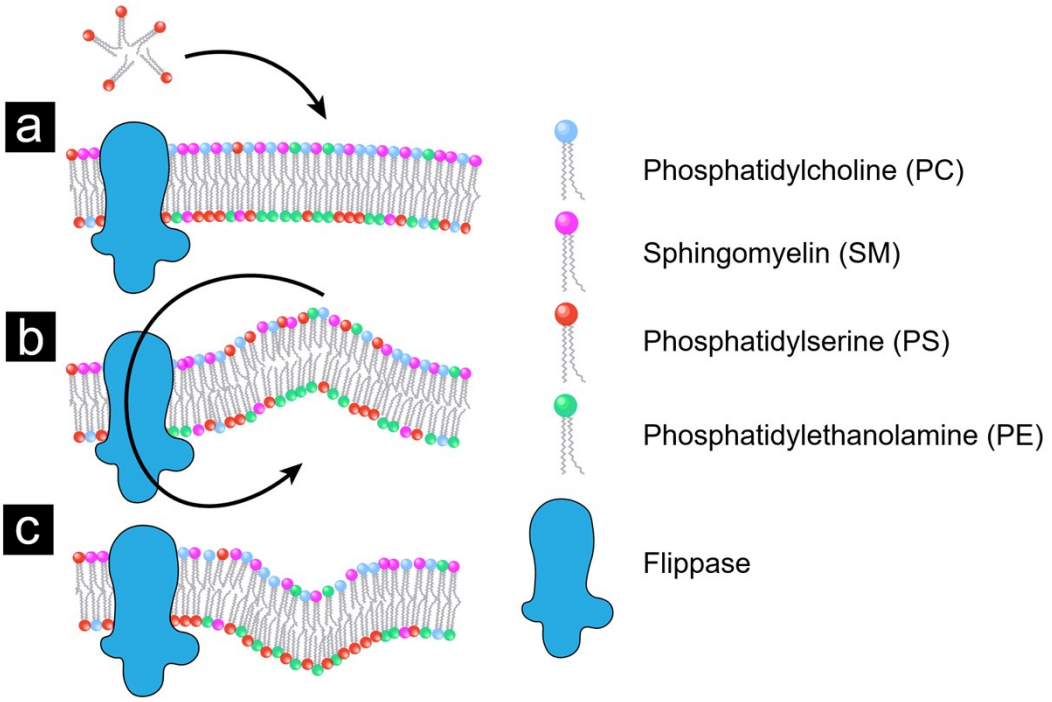

Figure S1. Cartoon representation of **(a)** flippase transporter in a bilayer membrane with heterogenous lipid distributions, **(b)** morphological change of membrane induced by adsorption of exogenous phosphatidylserine (PS) into the outer membrane leaflet, and **(c)** morphological change induced by flippase dependent lipid redistribution.

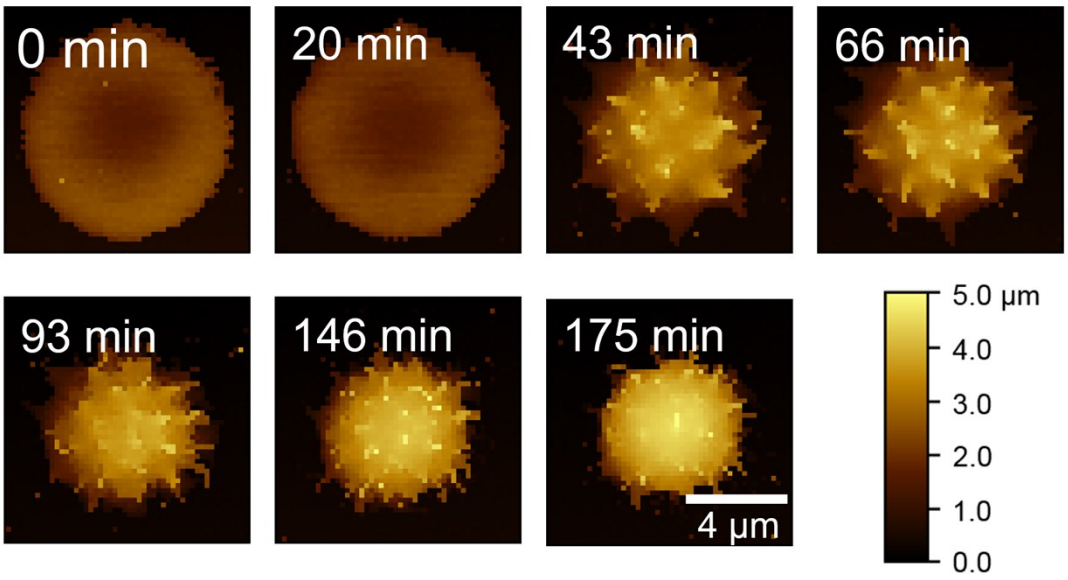

Figure S2. Topography images of morphological change of a human erythrocyte at different time points after exogenous DLPS was incorporated. The formation of spherocyte is most likely the consequence of cell expansion caused by the excessive transport of lipids