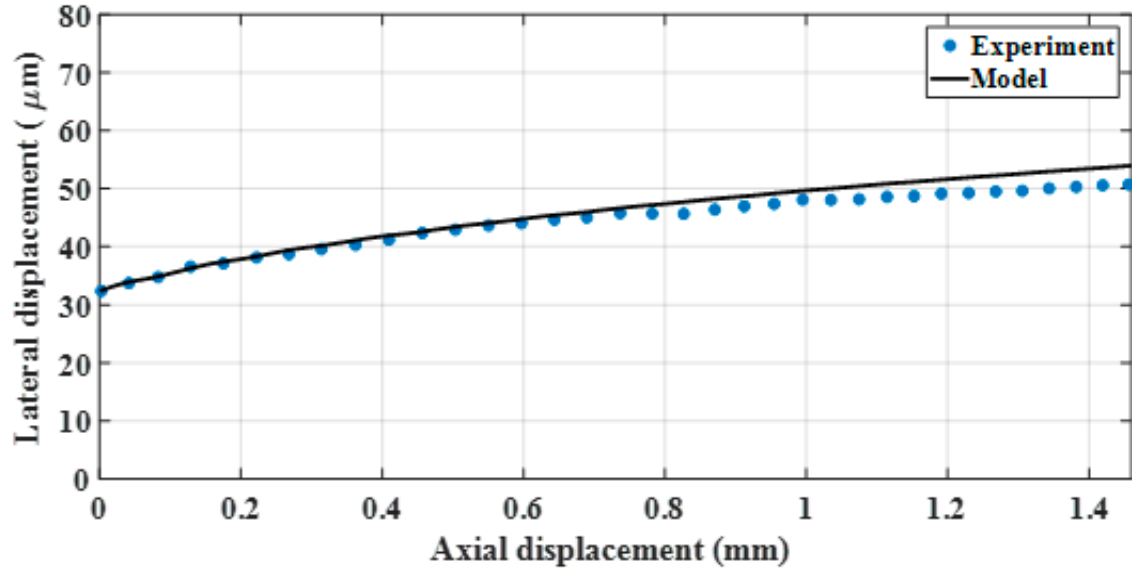


(a)



(b)

Figure S1. (a) Experimental trajectory of single RBC using interdigitated electrodes. The dark rectangles represent the electrodes; (b) comparison between the experimental actual path of RBC and the model result (Experiment: electrode width: $\sim 60 \mu\text{m}$. electrode gap: $\sim 60 \mu\text{m}$, channel width: $\sim 80 \mu\text{m}$. channel height: $\sim 30 \mu\text{m}$, flow rate: $5 \mu\text{L/hr}$, applied voltage and frequency: $10 V_{pp}$ @ 10KHz ; Model: same operational and geometrical conditions as experiment, particle diameter: $5.6 \mu\text{m}$).