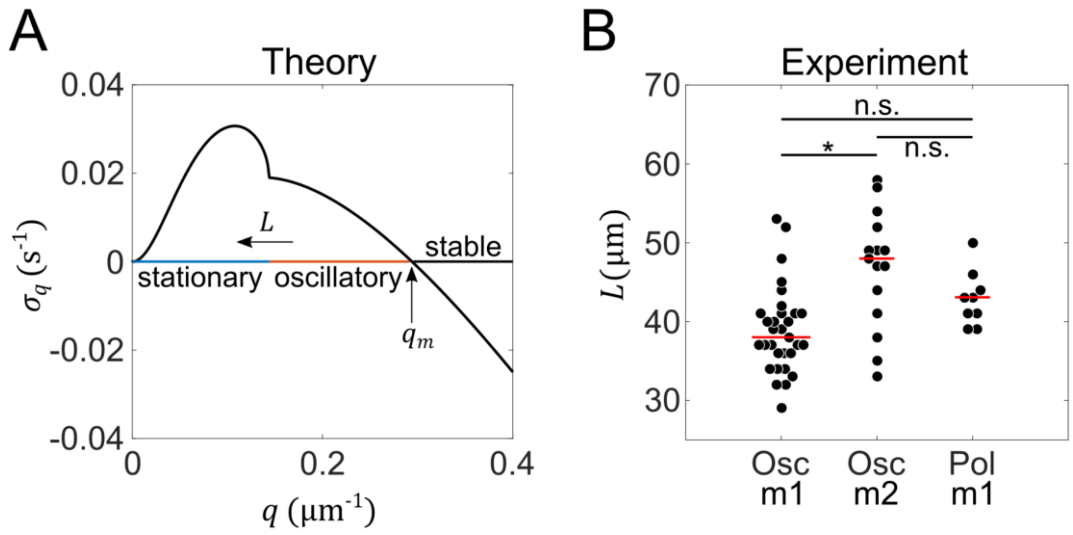

S5 Fig. Effect of circumference size on pattern formation. (**A**) The growth rate has positive values for wavenumbers within the interval $(0, q_m)$, implying that these modes are unstable. Since the wavenumber is a function of L, represented as $q = 2n\pi/L$, the value q_m defines the minimum length, $L_n^{min} = 2n\pi/q_m$, at which the n^{th} Fourier mode becomes unstable. Using the parameter values in S2 Appendix Table 1, we have determined L_1^{min}~20 μm, L_2^{min}~40 μm, and so on. As L increases (which means q decreases), the type of instability changes from oscillatory to stationary, as indicated by the kink in the growth curve. For all $L > L_1^{min}$, however, the result of the simulations is an oscillating pattern. (**B**) A comparison of the measured perimeters of cells showing first-order oscillatory patterns (Osc m1), second-order oscillatory patterns (Osc m2), and first-order stationary patterns (Pol m1). The red lines denote the respective median values: $L(\text{Osc\_m1}) = 38\ (36 \text{ to } 41)$ μm, $n = 31$; $L(\text{Osc\_m2}) = 48\ (42 \text{ to } 51)$ μm, $n = 15$; $L(\text{Pol\_m1}) = 43\ (40 \text{ to } 45)$ μm, $n = 9$, (median, interquartile range); * means $P < 0.01$, while n.s. means not significant.