

Table S2: Experimental data on individual cell motility parameters and resulted wavelengths is consistent with the Eq.(2)

Data source	Cell speed	Reversal period	Wave-crest width	Predicted wavelength	Measured wavelength
Our measurements (main text figure)	$6.0 \pm 1.5 \mu\text{m}/\text{min}$	$6.6 \pm 2.4 \text{ min}$	$10 \pm 5 \mu\text{m}$	$99.2 \mu\text{m}$	$82 \pm 15 \mu\text{m}$
Our measurements ¹	$2.9 \pm 1.7 \text{ m}/\text{min}$	$6.0 \pm 6.0 \text{ min}$	$5 \pm 2 \mu\text{m}$	$44.8 \mu\text{m}$	$40 \pm 12 \mu\text{m}$
Our measurements ¹	$3.0 \pm 1.7 \mu\text{m}/\text{min}$	$4.5 \pm 4.3 \text{ min}$	$2 \pm 3 \mu\text{m}$	$31.0 \mu\text{m}$	$28 \pm 4 \mu\text{m}$
Ref. [13] ²	$\sim 3.0 \mu\text{m}/\text{min}$	$\sim 8.0 \text{ min}$	$\sim 10 \mu\text{m}$	$68.0 \mu\text{m}$	$\sim 70 \mu\text{m}$

¹ We selected two movies displaying different wavelength for detailed analysis and tracking. Variations in cell speed and reversal period are due to differences in agar and prey density.

² Data on extracted from Figures and text of Ref. [13].