

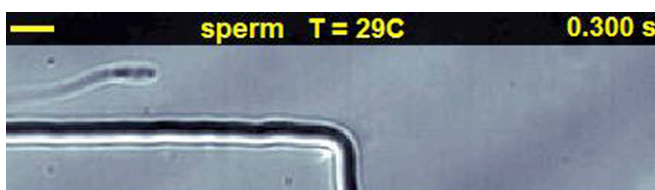
# Supporting Information

Kantsler et al. 10.1073/pnas.1210548110



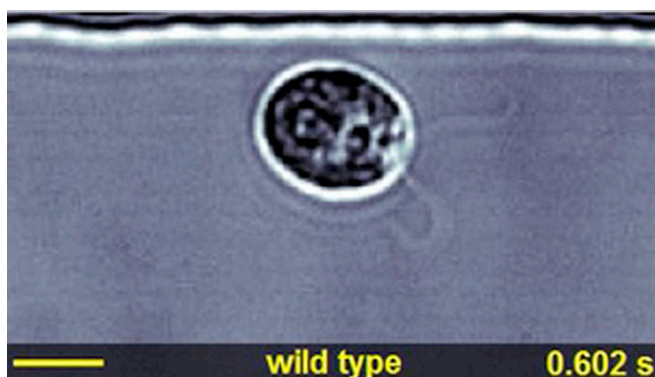
**Movie S1.** Scattering of a swimming bull sperm cell from a solid surface corner at temperature  $T = 10\text{ }^{\circ}\text{C}$  (see *Materials and Methods* for details about the imaging techniques). (Scale bar:  $20\text{ }\mu\text{m}$ .)

[Movie S1](#)



**Movie S2.** Scattering of a swimming bull sperm cell from a solid surface corner at temperature  $T = 29\text{ }^{\circ}\text{C}$  (see *Materials and Methods* for details about the imaging techniques). (Scale bar:  $20\text{ }\mu\text{m}$ .)

[Movie S2](#)



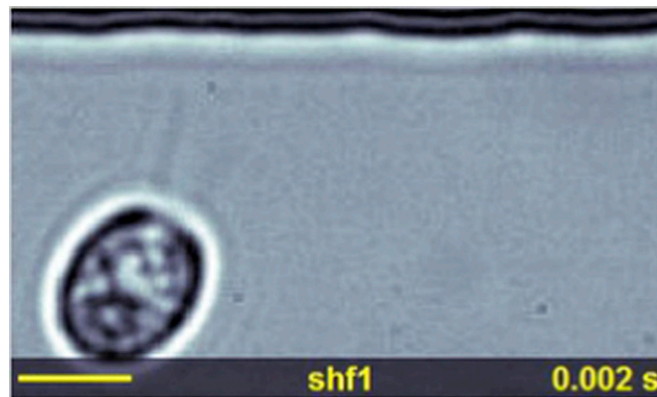
**Movie S3.** Scattering of a swimming WT *Chlamydomonas* cell from a solid surface (see *Materials and Methods* for details about the imaging techniques). (Scale bar:  $10\text{ }\mu\text{m}$ .)

[Movie S3](#)



**Movie S4.** Scattering of the long-flagella mutant lf3-2 from a solid surface (see *Materials and Methods* for details about the imaging techniques). (Scale bar: 10  $\mu\text{m}$ .)

[Movie S4](#)



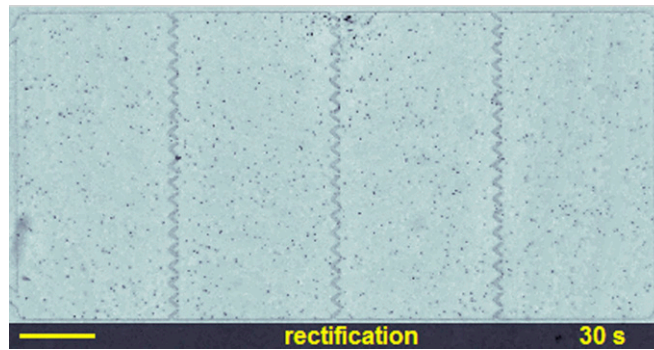
**Movie S5.** Scattering of the short-flagella mutant shf1 from a solid surface (see *Materials and Methods* for details about the imaging techniques). (Scale bar: 10  $\mu\text{m}$ .)

[Movie S5](#)



**Movie S6.** Scattering of the backward-only swimming mutant mbo1 from a solid surface (see *Materials and Methods* for details about the imaging techniques). (Scale bar: 10  $\mu\text{m}$ .)

[Movie S6](#)



**Movie S7.** Rectification of swimming WT *Chlamydomonas* algae through wedge-shaped ratchets in a quasi-2D microfluidic chamber (see *Materials and Methods* for details about the imaging techniques). (Scale bar: 0.5 mm.)

[Movie S7](#)