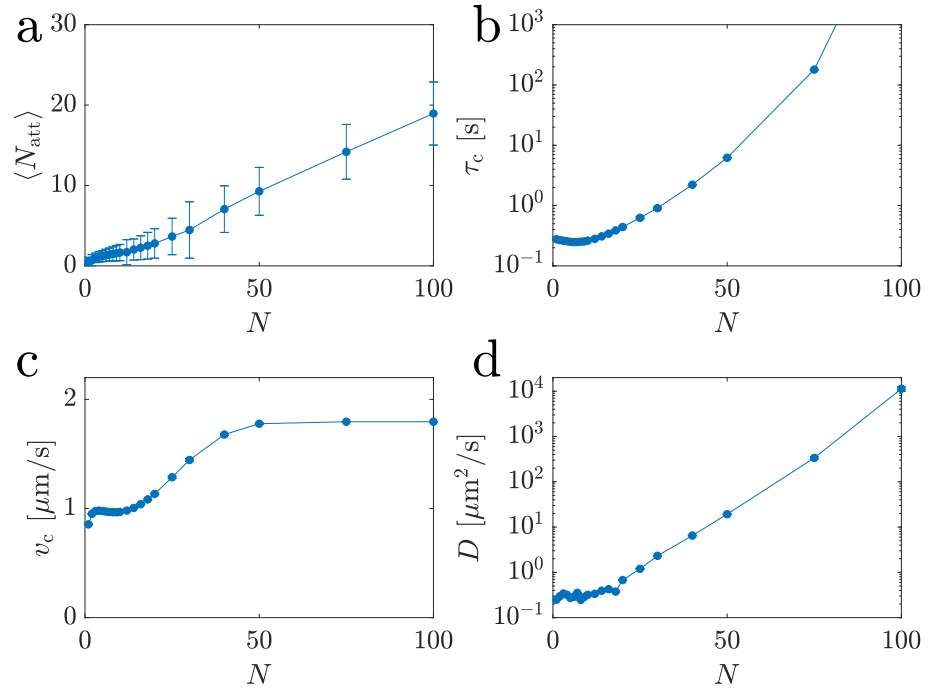

Substrate motility of bacterial cells and aggregates - Supporting information

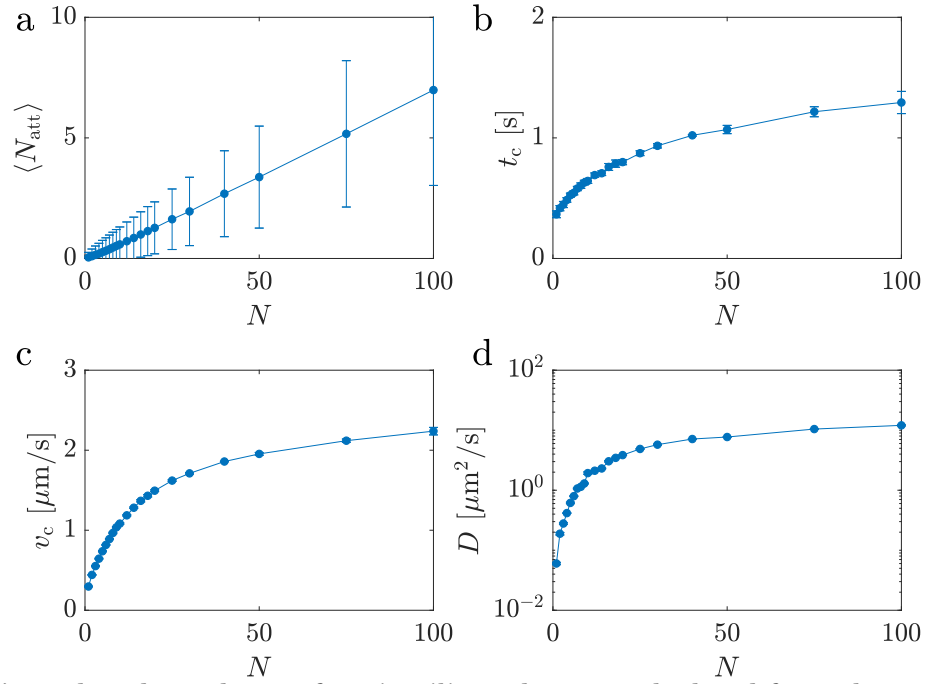
Wolfram Pönisch, Christoph A. Weber, Vasily Zaburdaev

Fig. S1



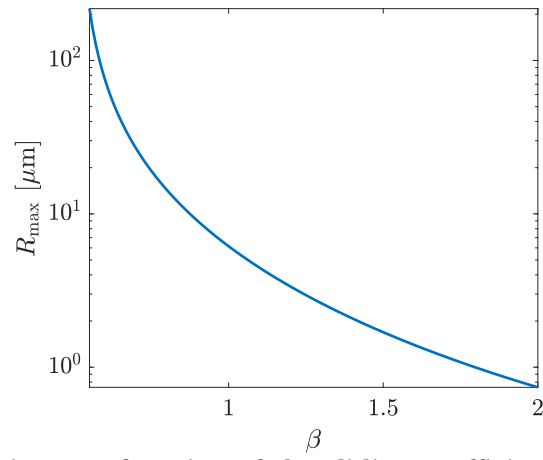
Pili-number dependence of an *in silico* colony as calculated from the stochastic model for sliding friction coefficients $\beta = 0.8$. Data for trajectories of the *fast* parameter. (a) Mean number of attached pili as a function of the total number of pili. (b) Characteristic time t_c as a function of the total pili number. (c) Characteristic velocity v_c as a function of the total pili number. (d) Diffusion coefficient D as a function of the pili number.

Fig. S2



Pili-number dependence of an *in silico* colony as calculated from the three-dimensional model for sliding friction coefficients $\beta = 0.8$. Data for trajectories of the *fast* parameter. (a) Mean number of attached pili as a function of the total number of pili. (b) Characteristic time t_c as a function of the total pili number. (c) Characteristic velocity v_c as a function of the total pili number. (d) Diffusion coefficient D as a function of the pili number.

Fig. S3



Maximal colony size as a function of the sliding coefficient β . For colonies of sizes larger than R_{\max} , a colony will not be able to move for the *fast* parameter set, as predicted by the calculations of Appendix B and Appendix C.