

Abstract Submitted
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Genetic Control of Rheology in Bacterial Biofilms JAMES WILKING, MICHAEL BRENNER, DAVID WEITZ, SEAS, Harvard University — Bacteria often form surface-associated colonies known as biofilms. Within these colonies, bacteria embed themselves in an extracellular matrix composed primarily of polysaccharides and proteins. The synthesis of each matrix component is under genetic control. As a result, the mechanical properties of the matrix are as well. By selectively removing primary components of the extracellular matrix through genetic mutations, we develop an understanding of the bulk mechanical properties of *B. subtilis* bacterial biofilms.

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