How Quorum Sensing Interactions Affect Microbial Population Structures 02-712 Final Project

Siddharth Reed*1, Neel1, Evan1, Sarah1, and Deepika1

¹Computational Biology Department, Carnegie Mellon University

November 11, 2021

Abstract

example abstract

Background

Methods

Results

Discussion

Bibliography

Aggarwal, Surya D., Hasan Yesilkaya, Suzanne Dawid, and N. Luisa Hiller. 2020. "The Pneumococcal Social Network." *PLOS Pathogens* 16 (10). https: //doi.org/10.1371/journal.ppat.1008931.

Dimitriu, Tatiana, Frances Medaney, Elli Amanatidou, Jessica Forsyth, Richard J. Ellis, and Ben Raymond. 2019. "Negative Frequency Dependent Selection on Plasmid Carriage and Low Fitness Costs Maintain Extended Spectrum Beta-Lactamases in Escherichia Coli." Scientific Reports 9

Eldar, A. 2011. "Social Conflict Drives the Evolutionary Divergence of Quorum Sensing." Proceedings of the National Academy of Sciences 108 (33): 13635–40. https://doi.org/10.1073/pnas.1102923108.

Pérez-Escudero, Alfonso, and Jeff Gore. 2016. "Selection Favors Incompatible Signaling in Bacteria." *Proceedings of the National Academy of Sciences* 113 (8): 1968–70. ht tps://doi.org/10.1073/pnas.1600174113.

Pollak, Shaul, Shira Omer-Bendori, Eran Even-Tov, Valeria Lipsman, Tasneem Bareia, Ishay Ben-Zion, and Avigdor Eldar. 2016. "Facultative Cheating Supports the Coexistence of Diverse Quorum-Sensing Alleles." Proceedings of the National Academy of Sciences 113 (8): 2152–57. https://doi.org/10.1073/pnas.1520615113.

^{(1).} https://doi.org/10.1038/s41598-019-53575-7.

^{*}slreed@andrew.cmu.edu