Carey D Nadell

List of Publications by Year
in descending order

40 papers	5,136 citations	218677 26 h-index	276875 41 g-index
56 all docs	56 docs citations	56 times ranked	5272 citing authors

#	Article	IF	Citations
1	Spatial structure, cooperation and competition in biofilms. Nature Reviews Microbiology, 2016, 14, 589-600.	28.6	757
2	The sociobiology of biofilms. FEMS Microbiology Reviews, 2009, 33, 206-224.	8.6	566
3	The Mechanical World of Bacteria. Cell, 2015, 161, 988-997.	28.9	422
4	The Evolution of Quorum Sensing in Bacterial Biofilms. PLoS Biology, 2008, 6, e14.	5.6	343
5	Emergence of Spatial Structure in Cell Groups and the Evolution of Cooperation. PLoS Computational Biology, 2010, 6, e1000716.	3.2	314
6	Solutions to the Public Goods Dilemma in Bacterial Biofilms. Current Biology, 2014, 24, 50-55.	3.9	307
7	Dynamic biofilm architecture confers individual and collective mechanisms of viral protection. Nature Microbiology, 2018, 3, 26-31.	13.3	231
8	A fitness trade-off between local competition and dispersal in <i>Vibrio cholerae</i> biofilms. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 14181-14185.	7.1	183
9	Quantitative image analysis of microbial communities with BiofilmQ. Nature Microbiology, 2021, 6, 151-156.	13.3	181
10	Architectural transitions in <i>Vibrio cholerae</i> biofilms at single-cell resolution. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E2066-72.	7.1	178
11	Extracellular matrix structure governs invasion resistance in bacterial biofilms. ISME Journal, 2015, 9, 1700-1709.	9.8	172
12	Adhesion as a weapon in microbial competition. ISME Journal, 2015, 9, 139-149.	9.8	156
13	Phage mobility is a core determinant of phageâ€“bacteria coexistence in biofilms. ISME Journal, 2018, 12, 532-543.	9.8	120
14	Extracellular-matrix-mediated osmotic pressure drives Vibrio cholerae biofilm expansion and cheater exclusion. Nature Communications, 2017, 8, 327.	12.8	119
15	Cutting through the complexity of cell collectives. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20122770.	2.6	111
16	The Evolution of Bacteriocin Production in Bacterial Biofilms. American Naturalist, 2011, 178, E162-E173.	2.1	87
17	Vibrio cholerae Combines Individual and Collective Sensing to Trigger Biofilm Dispersal. Current Biology, 2017, 27, 3359-3366.e7.	3.9	83
18	Fungal biofilm morphology impacts hypoxia fitness and disease progression. Nature Microbiology, 2019, 4, 2430-2441.	13.3	81

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19	Flow environment and matrix structure interact to determine spatial competition in Pseudomonas aeruginosa biofilms. ELife, 2017, 6, .	6.0	65
20	Breakdown of Vibrio cholerae biofilm architecture induced by antibiotics disrupts community barrier function. Nature Microbiology, 2019, 4, 2136-2145.	13.3	64
21	Fungal biofilm architecture produces hypoxic microenvironments that drive antifungal resistance. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 22473-22483.	7.1	63
22	Universality in Bacterial Colonies. Journal of Statistical Physics, 2011, 144, 303-315.	1.2	58
23	Biofilm Structure Promotes Coexistence of Phage-Resistant and Phage-Susceptible Bacteria. MSystems, 2020, 5, .	3.8	52
24	<i>Vibrio cholerae</i> filamentation promotes chitin surface attachment at the expense of competition in biofilms. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14216-14221.	7.1	47
25	Environmental fluctuation governs selection for plasticity in biofilm production. ISME Journal, 2017, 11, 1569-1577.	9.8	45
26	Observing bacteria through the lens of social evolution. Journal of Biology, 2008, 7, 27.	2.7	37
27	Cell adhesion and fluid flow jointly initiate genotype spatial distribution in biofilms. PLoS Computational Biology, 2018, 14, e1006094.	3.2	31
28	Cellular advective-diffusion drives the emergence of bacterial surface colonization patterns and heterogeneity. Nature Communications, 2019, 10, 2471.	12.8	30
29	A Conserved Regulatory Circuit Controls Large Adhesins in Vibrio cholerae. MBio, 2019, 10, .	4.1	29
30	Bacterial predation transforms the landscape and community assembly of biofilms. Current Biology, 2021, 31, 2643-2651.e3.	3.9	29
31	Model Systems to Study the Chronic, Polymicrobial Infections in Cystic Fibrosis: Current Approaches and Exploring Future Directions. MBio, 2021, 12, e0176321.	4.1	26
32	Let-7b-5p in vesicles secreted by human airway cells reduces biofilm formation and increases antibiotic sensitivity of <i>P. aeruginosa</i>. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	24
33	Matrix-trapped viruses can prevent invasion of bacterial biofilms by colonizing cells. ELife, 2021, 10, .	6.0	22
34	Both Pseudomonas aeruginosa and Candida albicans Accumulate Greater Biomass in Dual-Species Biofilms under Flow. MSphere, 2021, 6, e0041621.	2.9	14
35	Social evolution of shared biofilm matrix components. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	14
36	A Heterogeneously Expressed Gene Family Modulates the Biofilm Architecture and Hypoxic Growth of <i>Aspergillus fumigatus</i>. MBio, 2021, 12, .	4.1	11

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37	Mutually helping microbes can evolve by hitchhiking. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19037-19038.	7.1	8
38	Differential Surface Competition and Biofilm Invasion Strategies of Pseudomonas aeruginosa PA14 and PAO1. Journal of Bacteriology, 2021, 203, e0026521.	2.2	7
39	An Alanine Aminotransferase Is Required for Biofilm-Specific Resistance of Aspergillus fumigatus to Echinocandin Treatment. MBio, 2022, 13, e0293321.	4.1	5
40	An Emerging Grip on the Growth of Grounded Bacteria. ACS Nano, 2016, 10, 9109-9110.	14.6	3