Lingchong You

List of Publications by Year
in descending order

98 papers	7,528 citations	71102 41 h-index	60623 81 g-index
108 all docs	108 docs citations	108 times ranked	7841 citing authors

#	Article	IF	Citations
1	Engineering microbial consortia: a new frontier in synthetic biology. Trends in Biotechnology, 2008, 26, 483-489.	9.3	809
2	Programmed population control by cellâ€"cell communication and regulated killing. Nature, 2004, 428, 868-871.	27.8	696
3	Long-Term Monitoring of Bacteria Undergoing Programmed Population Control in a Microchemostat. Science, 2005, 309, 137-140.	12.6	535
4	A synthetic <i>Escherichia coli</i> predatorâ€"prey ecosystem. Molecular Systems Biology, 2008, 4, 187.	7.2	425
5	A bistable Rbâ€"E2F switch underlies the restriction point. Nature Cell Biology, 2008, 10, 476-482.	10.3	373
6	Emergent bistability by a growth-modulating positive feedback circuit. Nature Chemical Biology, 2009, 5, 842-848.	8.0	306
7	Persistence and reversal of plasmid-mediated antibiotic resistance. Nature Communications, 2017, 8, 1689.	12.8	252
8	Antibiotics as a selective driver for conjugation dynamics. Nature Microbiology, 2016, 1, 16044.	13.3	212
9	A noisy linear map underlies oscillations in cell size and gene expression in bacteria. Nature, 2015, 523, 357-360.	27.8	209
10	Metabolic division of labor in microbial systems. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2526-2531.	7.1	191
11	Bacterial metabolic state more accurately predicts antibiotic lethality than growth rate. Nature Microbiology, 2019, 4, 2109-2117.	13.3	171
12	Prophage Hunter: an integrative hunting tool for active prophages. Nucleic Acids Research, 2019, 47, W74-W80.	14.5	169
13	Collective antibiotic tolerance: mechanisms, dynamics and intervention. Nature Chemical Biology, 2015, 11, 182-188.	8.0	125
14	Optimality and robustness in quorum sensing (QS)-mediated regulation of a costly public good enzyme. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19810-19815.	7.1	113
15	Robust, linear correlations between growth rates and Î²-lactamâ€"mediated lysis rates. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4069-4074.	7.1	113
16	Temporal control of selfâ€organized pattern formation without morphogen gradients in bacteria. Molecular Systems Biology, 2013, 9, 697.	7.2	107
17	Programmable assembly of pressure sensors using pattern-forming bacteria. Nature Biotechnology, 2017, 35, 1087-1093.	17.5	94
18	Spatiotemporal modulation of biodiversity in a synthetic chemical-mediated ecosystem. Nature Chemical Biology, 2009, 5, 929-935.	8.0	89

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19	Emerging strategies for engineering microbial communities. Biotechnology Advances, 2019, 37, 107372.	11.7	88
20	A programmable microenvironment for cellular studies via microfluidics-generated double emulsions. Biomaterials, 2013, 34, 4564-4572.	11.4	86
21	The inoculum effect and bandâ€pass bacterial response to periodic antibiotic treatment. Molecular Systems Biology, 2012, 8, 617.	7.2	84
22	Collective Space-Sensing Coordinates Pattern Scaling in Engineered Bacteria. Cell, 2016, 165, 620-630.	28.9	82
23	Optimal tuning of bacterial sensing potential. Molecular Systems Biology, 2009, 5, 286.	7.2	77
24	Division of labour between Myc and G1 cyclins in cell cycle commitment and pace control. Nature Communications, 2014, 5, 4750.	12.8	74
25	Network calisthenics. Cell Cycle, 2011, 10, 3086-3094.	2.6	70
26	Programmed cell death in bacteria and implications for antibiotic therapy. Trends in Microbiology, 2013, 21, 265-270.	7.7	67
27	Sensing and Integration of Erk and PI3K Signals by Myc. PLoS Computational Biology, 2008, 4, e1000013.	3.2	62
28	Programmed Allee effect in bacteria causes a tradeoff between population spread and survival. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 1969-1974.	7.1	59
29	Biology by design: reduction and synthesis of cellular components and behaviour. Journal of the Royal Society Interface, 2007, 4, 607-623.	3.4	56
30	Oscillations by Minimal Bacterial Suicide Circuits Reveal Hidden Facets of Host-Circuit Physiology. PLoS ONE, 2010, 5, e11909.	2.5	56
31	Programming stressâ€induced altruistic death in engineered bacteria. Molecular Systems Biology, 2012, 8, 626.	7.2	55
32	Universal antibiotic tolerance arising from antibiotic-triggered accumulation of pyocyanin in Pseudomonas aeruginosa. PLoS Biology, 2019, 17, e3000573.	5.6	54
33	Engineered Ribonucleoprotein Granules Inhibit Translation in Protocells. Molecular Cell, 2019, 75, 66-75.e5.	9.7	52
34	Versatile biomanufacturing through stimulus-responsive cellâ€“material feedback. Nature Chemical Biology, 2019, 15, 1017-1024.	8.0	50
35	Massive computational acceleration by using neural networks to emulate mechanism-based biological models. Nature Communications, 2019, 10, 4354.	12.8	50
36	Noise Reduction by Diffusional Dissipation in a Minimal Quorum Sensing Motif. PLoS Computational Biology, 2008, 4, e1000167.	3.2	48

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37	Engineering multicellular systems by cellâ€“cell communication. Current Opinion in Biotechnology, 2009, 20, 461-470.	6.6	48
38	Dissecting the effects of antibiotics on horizontal gene transfer: Analysis suggests a critical role of selection dynamics. BioEssays, 2016, 38, 1283-1292.	2.5	48
39	Engineering microbial systems to explore ecological and evolutionary dynamics. Current Opinion in Biotechnology, 2012, 23, 791-797.	6.6	46
40	Toward Computational Systems Biology. Cell Biochemistry and Biophysics, 2004, 40, 167-184.	1.8	45
41	Viral-Mediated Noisy Gene Expression Reveals Biphasic E2f1 Response to MYC. Molecular Cell, 2011, 41, 275-285.	9.7	45
42	Environmental and genetic determinants of plasmid mobility in pathogenic <i>Escherichia coli</i>. Science Advances, 2020, 6, eaax3173.	10.3	45
43	Stochastic E2F Activation and Reconciliation of Phenomenological Cell-Cycle Models. PLoS Biology, 2010, 8, e1000488.	5.6	43
44	Synthetic Pattern Formation. Biochemistry, 2019, 58, 1478-1483.	2.5	43
45	Expression level is a key determinant of E2F1-mediated cell fate. Cell Death and Differentiation, 2017, 24, 626-637.	11.2	42
46	Cyclin D/CDK4/6 activity controls G1 length in mammalian cells. PLoS ONE, 2018, 13, e0185637.	2.5	42
47	Programmable living assembly of materials by bacterial adhesion. Nature Chemical Biology, 2022, 18, 289-294.	8.0	40
48	Engineered microbial consortia: strategies and applications. Microbial Cell Factories, 2021, 20, 211.	4.0	39
49	Modeling biological systems using Dynetica--a simulator of dynamic networks. Bioinformatics, 2003, 19, 435-436.	4.1	38
50	Bacterial Temporal Dynamics Enable Optimal Design of Antibiotic Treatment. PLoS Computational Biology, 2015, 11, e1004201.	3.2	38
51	Intra- and interpopulation transposition of mobile genetic elements driven by antibiotic selection. Nature Ecology and Evolution, 2022, 6, 555-564.	7.8	37
52	Elements of biological oscillations in time and space. Nature Structural and Molecular Biology, 2016, 23, 1030-1034.	8.2	36
53	Addressing biological uncertainties in engineering gene circuits. Integrative Biology (United) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf	1.3	36
54	A synthetic biology challenge: making cells compute. Molecular BioSystems, 2007, 3, 343.	2.9	35

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55	Programming microbial population dynamics by engineered cellâ€“cell communication. Biotechnology Journal, 2011, 6, 837-849.	3.5	34
56	Interindividual Variation in Dietary Carbohydrate Metabolism by Gut Bacteria Revealed with Droplet Microfluidic Culture. MSystems, 2020, 5, .	3.8	34
57	Coupling spatial segregation with synthetic circuits to control bacterial survival. Molecular Systems Biology, 2016, 12, 859.	7.2	33
58	Applying ecological resistance and resilience to dissect bacterial antibiotic responses. Science Advances, 2018, 4, eaau1873.	10.3	32
59	Drug detoxification dynamics explain the postantibiotic effect. Molecular Systems Biology, 2017, 13, 948.	7.2	31
60	Living fabrication of functional semi-interpenetrating polymeric materials. Nature Communications, 2021, 12, 3422.	12.8	31
61	Engineering consortia by polymeric microbial swarmbots. Nature Communications, 2022, 13, .	12.8	29
62	Division of logic labour. Nature, 2011, 469, 171-172.	27.8	28
63	A Synthetic Biology Approach to Understanding Cellular Information Processing. ACS Synthetic Biology, 2012, 1, 389-402.	3.8	27
64	Bayesian Learning from Marginal Data in Bionetwork Models. Statistical Applications in Genetics and Molecular Biology, 2011, 10, .	0.6	25
65	Dynamic control and quantification of bacterial population dynamics in droplets. Biomaterials, 2015, 61, 239-245.	11.4	25
66	Processing Oscillatory Signals by Incoherent Feedforward Loops. PLoS Computational Biology, 2016, 12, e1005101.	3.2	23
67	Long-term growth data of Escherichia coli at a single-cell level. Scientific Data, 2017, 4, 170036.	5.3	23
68	Modulation of microbial community dynamics by spatial partitioning. Nature Chemical Biology, 2022, 18, 394-402.	8.0	23
69	A unifying framework for interpreting and predicting mutualistic systems. Nature Communications, 2019, 10, 242.	12.8	21
70	Collective colony growth is optimized by branching pattern formation in <i>Pseudomonas aeruginosa</i>. Molecular Systems Biology, 2021, 17, e10089.	7.2	20
71	Growthâ€stageâ€dependent regulation of conjugation. AICHE Journal, 2020, 66, e16848.	3.6	17
72	The persistence potential of transferable plasmids. Nature Communications, 2020, 11, 5589.	12.8	16

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73	Design patterns for engineering genetic stability. Current Opinion in Biomedical Engineering, 2021, 19, 100297.	3.4	14
74	Decoding biological principles using gene circuits. Molecular BioSystems, 2009, 5, 695.	2.9	13
75	Hybrid (Organic/Inorganic) Electrodes from Bacterially Precipitated CdS for PEC/Storage Applications. Journal of Physical Chemistry C, 2017, 121, 3734-3743.	3.1	13
76	Computation of Steady-State Probability Distributions in Stochastic Models of Cellular Networks. PLoS Computational Biology, 2011, 7, e1002209.	3.2	12
77	Phenotypic Signatures Arising from Unbalanced Bacterial Growth. PLoS Computational Biology, 2014, 10, e1003751.	3.2	10
78	Temporal encoding of bacterial identity and traits in growth dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 20202-20210.	7.1	10
79	Synthetic Microbial Consortia and their Applications. , 2013, , 243-258.		9
80	Synthetic Biology Looks Good on Paper. Cell, 2014, 159, 718-720.	28.9	9
81	Tension and Robustness in Multitasking Cellular Networks. PLoS Computational Biology, 2012, 8, e1002491.	3.2	7
82	Advances and challenges in programming pattern formation using living cells. Current Opinion in Chemical Biology, 2022, 68, 102147.	6.1	6
83	Intelligent nanoscope for rapid nanomaterial identification and classification. Lab on A Chip, 0, , .	6.0	6
84	Repulsive expansion dynamics in colony growth and gene expression. PLoS Computational Biology, 2021, 17, e1008168.	3.2	5
85	Linear Population Allocation by Bistable Switches in Response to Transient Stimulation. PLoS ONE, 2014, 9, e105408.	2.5	4
86	A Power-Law Dependence of Bacterial Invasion on Mammalian Host Receptors. PLoS Computational Biology, 2015, 11, e1004203.	3.2	4
87	Quantitative and synthetic biology approaches to combat bacterial pathogens. Current Opinion in Biomedical Engineering, 2017, 4, 116-126.	3.4	4
88	A different life?. Current Opinion in Chemical Biology, 2012, 16, 243-244.	6.1	2
89	Emergent Dynamics from Quorum Eavesdropping. Chemistry and Biology, 2014, 21, 1601-1602.	6.0	2
90	Stochastic Sensitivity Analysis and Kernel Inference via Distributional Data. Biophysical Journal, 2014, 107, 1247-1255.	0.5	2

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91	Bacterially driven cadmium sulfide precipitation on porous membranes: Toward platforms for photocatalytic applications. Biointerphases, 2018, 13, 011006.	1.6	2
92	Quantifying E2F1 protein dynamics in single cells. Quantitative Biology, 2020, 8, 20-30.	0.5	2
93	Predicting plasmid persistence in microbial communities by coarseâ€grained modeling. BioEssays, 2021, 43, 2100084.	2.5	2
94	Hacking DNA copy number for circuit engineering. Nature Genetics, 2017, 49, 1164-1165.	21.4	1
95	Synthetic Biology: Reports from CSHA 2016 and More. Biotechnology Journal, 2018, 13, e1800160.	3.5	0
96	Polar-opposite fates. Nature Chemical Biology, 2019, 15, 850-852.	8.0	0
97	Bacterial Aggregation Leads to Collective Elimination. Trends in Microbiology, 2020, 28, 243-244.	7.7	0
98	Editorial overview: All microbial systems go`. Current Opinion in Microbiology, 2022, 65, iii-iv.	5.1	0