Alvaro San Millan

List of Publications by Year
in descending order

47 papers	3,205 citations	236925 25 h-index	233421 45 g-index
55 all docs	55 docs citations	55 times ranked	3041 citing authors

#	Article	IF	Citations
1	The evolution of antibiotic resistance. Science, 2019, 365, 1082-1083.	12.6	322
2	Fitness Costs of Plasmids: a Limit to Plasmid Transmission. Microbiology Spectrum, 2017, 5, .	3.0	312
3	Evolution of Plasmid-Mediated Antibiotic Resistance in the Clinical Context. Trends in Microbiology, 2018, 26, 978-985.	7.7	284
4	Positive selection and compensatory adaptation interact to stabilize non-transmissible plasmids. Nature Communications, 2014, 5, 5208.	12.8	202
5	Beyond horizontal gene transfer: the role of plasmids in bacterial evolution. Nature Reviews Microbiology, 2021, 19, 347-359.	28.6	194
6	Cooperation, competition and antibiotic resistance in bacterial colonies. ISME Journal, 2018, 12, 1582-1593.	9.8	160
7	Interactions between horizontally acquired genes create a fitness cost in Pseudomonas aeruginosa. Nature Communications, 2015, 6, 6845.	12.8	147
8	Multicopy plasmids potentiate the evolution of antibiotic resistance in bacteria. Nature Ecology and Evolution, 2017, 1, 10.	7.8	147
9	Positive epistasis between co-infecting plasmids promotes plasmid survival in bacterial populations. ISME Journal, 2014, 8, 601-612.	9.8	143
10	Multiresistance in Pasteurella multocida Is Mediated by Coexistence of Small Plasmids. Antimicrobial Agents and Chemotherapy, 2009, 53, 3399-3404.	3.2	101
11	Pervasive transmission of a carbapenem resistance plasmid in the gut microbiota of hospitalized patients. Nature Microbiology, 2021, 6, 606-616.	13.3	101
12	Variability of plasmid fitness effects contributes to plasmid persistence in bacterial communities. Nature Communications, 2021, 12, 2653.	12.8	96
13	Microbial Evolution: Towards Resolving the Plasmid Paradox. Current Biology, 2015, 25, R764-R767.	3.9	82
14	Integrative analysis of fitness and metabolic effects of plasmids in Pseudomonas aeruginosa PAO1. ISME Journal, 2018, 12, 3014-3024.	9.8	80
15	Multicopy plasmids allow bacteria to escape from fitness trade-offs during evolutionary innovation. Nature Ecology and Evolution, 2018, 2, 873-881.	7.8	72
16	Î²-Lactam Resistance in Haemophilus parasuis Is Mediated by Plasmid pB1000 Bearing bla _{ROB-1}. Antimicrobial Agents and Chemotherapy, 2007, 51, 2260-2264.	3.2	67
17	Small-Plasmid-Mediated Antibiotic Resistance Is Enhanced by Increases in Plasmid Copy Number and Bacterial Fitness. Antimicrobial Agents and Chemotherapy, 2015, 59, 3335-3341.	3.2	63
18	Genetic dominance governs the evolution and spread of mobile genetic elements in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 15755-15762.	7.1	41

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19	Haemophilus influenzae Clinical Isolates with Plasmid pB1000 Bearing bla _{ROB-1} : Fitness Cost and Interspecies Dissemination. Antimicrobial Agents and Chemotherapy, 2010, 54, 1506-1511.	3.2	40
20	Fitness Cost and Interference of Arm/Rmt Aminoglycoside Resistance with the RsmF Housekeeping Methyltransferases. Antimicrobial Agents and Chemotherapy, 2012, 56, 2335-2341.	3.2	39
21	Sequencing of plasmids pAMBL1 and pAMBL2 fromPseudomonas aeruginosareveals abla_{VIM-1}amplification causing high-level carbapenem resistance. Journal of Antimicrobial Chemotherapy, 2015, 70, 3000-3003.	3.0	35
22	The Genomic Basis of Evolutionary Innovation in Pseudomonas aeruginosa. PLoS Genetics, 2016, 12, e1006005.	3.5	35
23	A Naturally Occurring Single Nucleotide Polymorphism in a Multicopy Plasmid Produces a Reversible Increase in Antibiotic Resistance. Antimicrobial Agents and Chemotherapy, 2017, 61, .	3.2	35
24	First Characterization of Fluoroquinolone Resistance in Streptococcus suis. Antimicrobial Agents and Chemotherapy, 2007, 51, 777-782.	3.2	34
25	Fluoroquinolone Efflux in Streptococcus suis Is Mediated by SatAB and Not by SmrA. Antimicrobial Agents and Chemotherapy, 2011, 55, 5850-5860.	3.2	28
26	ArmA Methyltransferase in a Monophasic Salmonella enterica Isolate from Food. Antimicrobial Agents and Chemotherapy, 2011, 55, 5262-5266.	3.2	26
27	PCR-Based Analysis of ColE1 Plasmids in Clinical Isolates and Metagenomic Samples Reveals Their Importance as Gene Capture Platforms. Frontiers in Microbiology, 2018, 9, 469.	3.5	26
28	Staphylococcal phages and pathogenicity islands drive plasmid evolution. Nature Communications, 2021, 12, 5845.	12.8	26
29	VanB-Type Enterococcus faecium Clinical Isolate Successively Inducibly Resistant to, Dependent on, and Constitutively Resistant to Vancomycin. Antimicrobial Agents and Chemotherapy, 2009, 53, 1974-1982.	3.2	20
30	Evaluating the effect of horizontal transmission on the stability of plasmids under different selection regimes. Mobile Genetic Elements, 2015, 5, 29-33.	1.8	20
31	Fitness Costs of Plasmids: A Limit to Plasmid Transmission. , 0, , 65-79.		18
32	Contribution of ROB-1 and PBP3 mutations to the resistance phenotype of a Î²-lactamase-positive amoxicillin/clavulanic acid-resistant Haemophilus influenzae carrying plasmid pB1000 in Italy. Journal of Antimicrobial Chemotherapy, 2011, 66, 96-99.	3.0	17
33	Culturable aerobic and facultative bacteria from the gut of the polyphagic dung beetle Thorectes lusitanicus. Insect Science, 2015, 22, 178-190.	3.0	17
34	Methods to Study Fitness and Compensatory Adaptation in Plasmid-Carrying Bacteria. Methods in Molecular Biology, 2020, 2075, 371-382.	0.9	17
35	Collateral sensitivity associated with antibiotic resistance plasmids. ELife, 2021, 10, .	6.0	16
36	Novel genetic environment of qnrB2 associated with TEM-1 and SHV-12 on pB1004, an IncHI2 plasmid, in Salmonella Bredeney BB1047 from Spain. Journal of Antimicrobial Chemotherapy, 2009, 64, 1334-1336.	3.0	15

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37	Molecular Organization of Small Plasmids Bearing bla _{TEM-1} and Conferring Resistance to I²-Lactams in Haemophilus influenzae. Antimicrobial Agents and Chemotherapy, 2012, 56, 4958-4960.	3.2	14
38	Mathematical Models of Plasmid Population Dynamics. Frontiers in Microbiology, 2021, 12, 606396.	3.5	14
39	Plasmid-borne 16S rRNA methylase ArmA in aminoglycoside-resistant Klebsiella pneumoniae in Poland. Journal of Medical Microbiology, 2011, 60, 1306-1311.	1.8	12
40	Simulating the Influence of Conjugative-Plasmid Kinetic Values on the Multilevel Dynamics of Antimicrobial Resistance in a Membrane Computing Model. Antimicrobial Agents and Chemotherapy, 2020, 64, .	3.2	11
41	Translational demand is not a major source of plasmid-associated fitness costs. Philosophical Transactions of the Royal Society B: Biological Sciences, 2022, 377, 20200463.	4.0	10
42	Transfer dynamics of Tn6648, a composite integrative conjugative element generated by tandem accretion of Tn5801 and Tn6647 in Enterococcus faecalis. Journal of Antimicrobial Chemotherapy, 2019, 74, 2517-2523.	3.0	8
43	SatR Is a Repressor of Fluoroquinolone Efflux Pump SatAB. Antimicrobial Agents and Chemotherapy, 2013, 57, 3430-3433.	3.2	6
44	Testing the Role of Multicopy Plasmids in the Evolution of Antibiotic Resistance. Journal of Visualized Experiments, 2018, , .	0.3	3
45	The bacterial capsule is a gatekeeper for mobile DNA. PLoS Biology, 2021, 19, e3001308.	5.6	3
46	The journey of bacterial genes. Nature Ecology and Evolution, 2022, 6, 498-499.	7.8	1
47	Resistencia a antibiÃ³ticos: esquivando balas mÃ¡gicas. Metode, 2019, , .	0.1	0