

# Michael J Mcdonald

## List of Publications by Year in descending order

Source: [//exaly.com/author-pdf/5141363/publications.pdf](https://exaly.com/author-pdf/5141363/publications.pdf)

Version: 2024-02-01

28  
papers

2,130  
citations

441845

17  
h-index

537477

26  
g-index

31  
all docs

31  
docs citations

31  
times ranked

3585  
citing authors

#	ARTICLE	IF	CITATIONS
1	The dynamics of molecular evolution over 60,000 generations. <i>Nature</i> , 2017, 551, 45-50.	36.2	624
2	Sex speeds adaptation by altering the dynamics of molecular evolution. <i>Nature</i> , 2016, 531, 233-236.	36.2	316
3	Diverse hydrogen production and consumption pathways influence methane production in ruminants. <i>ISME Journal</i> , 2019, 13, 2617-2632.	10.0	151
4	Adaptive Divergence in Experimental Populations of <i>Pseudomonas fluorescens</i> . IV. Genetic Constraints Guide Evolutionary Trajectories in a Parallel Adaptive Radiation. <i>Genetics</i> , 2009, 183, 1041-1053.	2.9	140
5	Microbial Experimental Evolution – a proving ground for evolutionary theory and a tool for <i>Discovery</i> . <i>EMBO Reports</i> , 2019, 20, e46992.	5.1	116
6	Clusters of Nucleotide Substitutions and Insertion/Deletion Mutations Are Associated with Repeat Sequences. <i>PLoS Biology</i> , 2011, 9, e1000622.	5.4	107
7	Adaptive evolution of genomically recoded <i>Escherichia coli</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 3090-3095.	7.6	79
8	Fitness cost of mcr-1-mediated polymyxin resistance in <i>Klebsiella pneumoniae</i> . <i>Journal of Antimicrobial Chemotherapy</i> , 2018, 73, 1604-1610.	3.2	72
9	Phenotypic and molecular evolution across 10,000 generations in laboratory budding yeast populations. <i>eLife</i> , 2021, 10, .	5.9	69
10	Horizontal gene transfer potentiates adaptation by reducing selective constraints on the spread of genetic variation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 26868-26875.	7.6	60
11	The Evolution of Low Mutation Rates in Experimental Mutator Populations of <i>Saccharomyces cerevisiae</i> . <i>Current Biology</i> , 2012, 22, 1235-1240.	4.0	50
12	The distribution of fitness effects of new beneficial mutations in <i>Pseudomonas fluorescens</i> . <i>Biology Letters</i> , 2011, 7, 98-100.	2.4	48
13	Crowded growth leads to the spontaneous evolution of semistable coexistence in laboratory yeast populations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 11306-11311.	7.6	48
14	Host diversity slows bacteriophage adaptation by selecting generalists over specialists. <i>Nature Ecology and Evolution</i> , 2021, 5, 350-359.	8.0	39
15	Species interactions constrain adaptation and preserve ecological stability in an experimental microbial community. <i>ISME Journal</i> , 2022, 16, 1442-1452.	10.0	28
16	The evolutionary dynamics of tRNA-gene copy number and codon-use in <i>E. coli</i> . <i>BMC Evolutionary Biology</i> , 2015, 15, 163.	3.1	26
17	The evolution of coexistence from competition in experimental co-cultures of <i>Escherichia coli</i> and <i>Saccharomyces cerevisiae</i> . <i>ISME Journal</i> , 2021, 15, 746-761.	10.0	26
18	Coevolution with bacteria drives the evolution of aerobic fermentation in <i>Lachancea kluyveri</i> . <i>PLoS ONE</i> , 2017, 12, e0173318.	2.5	25

#	ARTICLE	IF	CITATIONS
19	Long-term experimental evolution decouples size and production costs in <i>Escherichia coli</i> . Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.6	24
20	Bacteriophages evolve enhanced persistence to a mucosal surface. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.6	21
21	Sex alters molecular evolution in diploid experimental populations of <i>S. cerevisiae</i> . Nature Ecology and Evolution, 2020, 4, 453-460.	8.0	20
22	Recombination resolves the cost of horizontal gene transfer in experimental populations of <i>Helicobacter pylori</i> . Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119010119.	7.6	12
23	Mutation at a distance caused by homopolymeric guanine repeats in <i>Saccharomyces cerevisiae</i> . Science Advances, 2016, 2, e1501033.	10.9	9
24	Polymyxin dose tunes the evolutionary dynamics of resistance in multidrug-resistant <i>Acinetobacter baumannii</i> . Clinical Microbiology and Infection, 2022, 28, 1026.e1-1026.e5.	6.5	7
25	Beneficial Mutations from Evolution Experiments Increase Rates of Growth and Fermentation. Journal of Molecular Evolution, 2018, 86, 111-117.	1.9	6
26	The evolutionary mechanism of non-carbapenemase carbapenem-resistant phenotypes in <i>Klebsiella</i> spp. ELife, 0, 12, .	5.9	2
27	Horizontal gene transfer facilitates the molecular reverse-evolution of antibiotic sensitivity in experimental populations of <i>H. pylori</i> . Nature Ecology and Evolution, 2024, 8, 315-324.	8.0	2
28	Evolutionary shift of a tipping point can precipitate, or forestall, collapse in a microbial community. Nature Ecology and Evolution, 0, , .	8.0	0