# Mark P Brynildsen

List of Publications by Year
in descending order



| 57 | 4,477 | 27 | 54 |
|---|---|---|---|
| papers | citations | h-index | g-index |
| | | 201674 | 161849 |

| 64 | 64 | 64 | 4210 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Fluoroquinolone Persistence in Escherichia coli Requires DNA Repair despite Differing between Starving Populations. Microorganisms, 2022, 10, 286. | 3.6 | 1 |
| 2 | Translational Fusion to Hmp Improves Heterologous Protein Expression. Microorganisms, 2022, 10, 358. | 3.6 | 1 |
| 3 | Metabolites Potentiate Nitrofurans in Nongrowing Escherichia coli. Antimicrobial Agents and Chemotherapy, 2021, 65, . | 3.2 | 8 |
| 4 | Pseudomonas aeruginosa prioritizes detoxification of hydrogen peroxide over nitric oxide. BMC Research Notes, 2021, 14, 120. | 1.4 | 1 |
| 5 | Ploidy is an important determinant of fluoroquinolone persister survival. Current Biology, 2021, 31, 2039-2050.e7. | 3.9 | 23 |
| 6 | Phagosomeâ€"Bacteria Interactions from the Bottom Up. Annual Review of Chemical and Biomolecular Engineering, 2021, 12, 309-331. | 6.8 | 13 |
| 7 | Rifamycin antibiotics and the mechanisms of their failure. Journal of Antibiotics, 2021, 74, 786-798. | 2.0 | 25 |
| 8 | Toxin Induction or Inhibition of Transcription or Translation Posttreatment Increases Persistence to Fluoroquinolones. MBio, 2021, 12, e0198321. | 4.1 | 8 |
| 9 | Counting Chromosomes in Individual Bacteria to Quantify Their Impacts on Persistence. Methods in Molecular Biology, 2021, 2357, 125-146. | 0.9 | 0 |
| 10 | Robustness of nitric oxide detoxification to nitrogen starvation in Escherichia coli requires RelA. Free Radical Biology and Medicine, 2021, 176, 286-297. | 2.9 | 5 |
| 11 | Synergy Screening Identifies a Compound That Selectively Enhances the Antibacterial Activity of Nitric Oxide. Frontiers in Bioengineering and Biotechnology, 2020, 8, 1001. | 4.1 | 7 |
| 12 | Quantitative Modeling Extends the Antibacterial Activity of Nitric Oxide. Frontiers in Physiology, 2020, 11, 330. | 2.8 | 8 |
| 13 | Quantifying Nitric Oxide Flux Distributions. Methods in Molecular Biology, 2020, 2088, 161-188. | 0.9 | 3 |
| 14 | Transcriptional Regulation Contributes to Prioritized Detoxification of Hydrogen Peroxide over Nitric Oxide. Journal of Bacteriology, 2019, 201, . | 2.2 | 16 |
| 15 | Stationary phase persister formation in Escherichia coli can be suppressed by piperacillin and PBP3 inhibition. BMC Microbiology, 2019, 19, 140. | 3.3 | 13 |
| 16 | Enhanced antibiotic resistance development from fluoroquinolone persisters after a single exposure to antibiotic. Nature Communications, 2019, 10, 1177. | 12.8 | 124 |
| 17 | Definitions and guidelines for research on antibiotic persistence. Nature Reviews Microbiology, 2019, 17, 441-448. | 28.6 | 748 |
| 18 | Checks and Balances with Use of the Keio Collection for Phenotype Testing. Methods in Molecular Biology, 2019, 1927, 125-138. | 0.9 | 4 |

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| --- | --- | --- | --- |
| 19 | Loss of DksA leads to multi-faceted impairment of nitric oxide detoxification by Escherichia coli. Free Radical Biology and Medicine, 2019, 130, 288-296. | 2.9 | 32 |
| 20 | Nutrient Depletion and Bacterial Persistence. , 2019, , 99-132. | | 3 |
| 21 | Nitric Oxide Stress as a Metabolic Flux. Advances in Microbial Physiology, 2018, 73, 63-76. | 2.4 | 0 |
| 22 | Timing of DNA damage responses impacts persistence to fluoroquinolones. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6301-E6309. | 7.1 | 77 |
| 23 | An Orphan Riboswitch Unveils Guanidine Regulation in Bacteria. Molecular Cell, 2017, 65, 205-206. | 9.7 | 2 |
| 24 | Biased inheritance protects older bacteria from harm. Science, 2017, 356, 247-248. | 12.6 | 3 |
| 25 | An integrated network analysis identifies how ArcAB enables metabolic oscillations in the nitric oxide detoxification network of Escherichia coli. Biotechnology Journal, 2017, 12, 1600570. | 3.5 | 6 |
| 26 | An integrated network analysis reveals that nitric oxide reductase prevents metabolic cycling of nitric oxide by Pseudomonas aeruginosa. Metabolic Engineering, 2017, 41, 67-81. | 7.0 | 15 |
| 27 | Tackling hostâ€“circuit give and take. Nature Microbiology, 2017, 2, 1584-1585. | 13.3 | 1 |
| 28 | Construction and Experimental Validation of a Quantitative Kinetic Model of Nitric Oxide Stress in Enterohemorrhagic Escherichia coli O157:H7. Bioengineering, 2016, 3, 9. | 3.5 | 28 |
| 29 | Development of Persister-FACSeq: a method to massively parallelize quantification of persister physiology and its heterogeneity. Scientific Reports, 2016, 6, 25100. | 3.3 | 47 |
| 30 | Starved Escherichia coli preserve reducing power under nitric oxide stress. Biochemical and Biophysical Research Communications, 2016, 476, 29-34. | 2.1 | 7 |
| 31 | A biochemical engineering view of the quest for immune-potentiating anti-infectives. Current Opinion in Chemical Engineering, 2016, 14, 82-92. | 7.8 | 21 |
| 32 | Quantifying Current Events Identifies a Novel Endurance Regulator. Trends in Microbiology, 2016, 24, 324-326. | 7.7 | 0 |
| 33 | Persister formation in Escherichia coli can be inhibited by treatment with nitric oxide. Free Radical Biology and Medicine, 2016, 93, 145-154. | 2.9 | 34 |
| 34 | Discovery and dissection of metabolic oscillations in the microaerobic nitric oxide response network of <i>Escherichia coli</i>. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1757-66. | 7.1 | 33 |
| 35 | Analyzing Persister Physiology with Fluorescence-Activated Cell Sorting. Methods in Molecular Biology, 2016, 1333, 83-100. | 0.9 | 13 |
| 36 | Non-Monotonic Survival of Staphylococcus aureus with Respect to Ciprofloxacin Concentration Arises from Prophage-Dependent Killing of Persisters. Pharmaceuticals, 2015, 8, 778-792. | 3.8 | 8 |

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|---|---|---|---|
| 37 | Aminoglycosideâ€Enabled Elucidation of Bacterial Persister Metabolism. Current Protocols in Microbiology, 2015, 36, 17.9.1-17.9.14. | 6.5 | 10 |
| 38 | Impacts of Global Transcriptional Regulators on Persister Metabolism. Antimicrobial Agents and Chemotherapy, 2015, 59, 2713-2719. | 3.2 | 37 |
| 39 | An ensemble-guided approach identifies ClpP as a major regulator of transcript levels in nitric oxide-stressed Escherichia coli. Metabolic Engineering, 2015, 31, 22-34. | 7.0 | 30 |
| 40 | Futile cycling increases sensitivity toward oxidative stress in Escherichia coli. Metabolic Engineering, 2015, 29, 26-35. | 7.0 | 56 |
| 41 | Persister Heterogeneity Arising from a Single Metabolic Stress. Current Biology, 2015, 25, 2090-2098. | 3.9 | 124 |
| 42 | Inhibition of stationary phase respiration impairs persister formation in E. coli. Nature Communications, 2015, 6, 7983. | 12.8 | 110 |
| 43 | Stationary-Phase Persisters to Ofloxacin Sustain DNA Damage and Require Repair Systems Only during Recovery. MBio, 2015, 6, e00731-15. | 4.1 | 100 |
| 44 | RNA Futile Cycling in Model Persisters Derived from MazF Accumulation. MBio, 2015, 6, e01588-15. | 4.1 | 48 |
| 45 | A Kinetic Platform to Determine the Fate of Hydrogen Peroxide in Escherichia coli. PLoS Computational Biology, 2015, 11, e1004562. | 3.2 | 37 |
| 46 | Model-driven identification of dosing regimens that maximize the antimicrobial activity of nitric oxide. Metabolic Engineering Communications, 2014, 1, 12-18. | 3.6 | 23 |
| 47 | Deciphering nitric oxide stress in bacteria with quantitative modeling. Current Opinion in Microbiology, 2014, 19, 16-24. | 5.1 | 56 |
| 48 | Nutrient Transitions Are a Source of Persisters in Escherichia coli Biofilms. PLoS ONE, 2014, 9, e93110. | 2.5 | 93 |
| 49 | The role of metabolism in bacterial persistence. Frontiers in Microbiology, 2014, 5, 70. | 3.5 | 193 |
| 50 | Dormancy Is Not Necessary or Sufficient for Bacterial Persistence. Antimicrobial Agents and Chemotherapy, 2013, 57, 3230-3239. | 3.2 | 219 |
| 51 | Establishment of a Method To Rapidly Assay Bacterial Persister Metabolism. Antimicrobial Agents and Chemotherapy, 2013, 57, 4398-4409. | 3.2 | 110 |
| 52 | Potentiating antibacterial activity by predictably enhancing endogenous microbial ROS production. Nature Biotechnology, 2013, 31, 160-165. | 17.5 | 375 |
| 53 | Metabolic Control of Persister Formation in Escherichia coli. Molecular Cell, 2013, 50, 475-487. | 9.7 | 353 |
| 54 | A Kinetic Platform to Determine the Fate of Nitric Oxide in Escherichia coli. PLoS Computational Biology, 2013, 9, e1003049. | 3.2 | 65 |

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|---|---|---|---|
| 55 | Heterogeneous bacterial persisters and engineering approaches to eliminate them. Current Opinion in Microbiology, 2011, 14, 593-598. | 5.1 | 175 |
| 56 | Metabolite-enabled eradication of bacterial persisters by aminoglycosides. Nature, 2011, 473, 216-220. | 27.8 | 787 |
| 57 | Systems Biology Makes It Personal. Molecular Cell, 2009, 34, 137-138. | 9.7 | 9 |