

Troy E Sandberg

List of Publications by Year in descending order

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Version: 2024-02-01

22
papers

1,540
citations

516710

16
h-index

677142

22
g-index

27
all docs

27
docs citations

27
times ranked

1848
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Bacterial fitness landscapes stratify based on proteome allocation associated with discrete aero-types. <i>PLoS Computational Biology</i> , 2021, 17, e1008596. | 3.2 | 14 |
| 2 | OxyR Is a Convergent Target for Mutations Acquired during Adaptation to Oxidative Stress-Prone Metabolic States. <i>Molecular Biology and Evolution</i> , 2020, 37, 660-667. | 8.9 | 52 |
| 3 | The Bitome: digitized genomic features reveal fundamental genome organization. <i>Nucleic Acids Research</i> , 2020, 48, 10157-10163. | 14.5 | 11 |
| 4 | Synthetic cross-phyla gene replacement and evolutionary assimilation of major enzymes. <i>Nature Ecology and Evolution</i> , 2020, 4, 1402-1409. | 7.8 | 13 |
| 5 | Causal mutations from adaptive laboratory evolution are outlined by multiple scales of genome annotations and condition-specificity. <i>BMC Genomics</i> , 2020, 21, 514. | 2.8 | 23 |
| 6 | The emergence of adaptive laboratory evolution as an efficient tool for biological discovery and industrial biotechnology. <i>Metabolic Engineering</i> , 2019, 56, 1-16. | 7.0 | 307 |
| 7 | Cellular responses to reactive oxygen species are predicted from molecular mechanisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 14368-14373. | 7.1 | 79 |
| 8 | Pseudogene repair driven by selection pressure applied in experimental evolution. <i>Nature Microbiology</i> , 2019, 4, 386-389. | 13.3 | 21 |
| 9 | Laboratory evolution reveals a two-dimensional rate-yield tradeoff in microbial metabolism. <i>PLoS Computational Biology</i> , 2019, 15, e1007066. | 3.2 | 33 |
| 10 | The genetic basis for adaptation of model-designed syntrophic co-cultures. <i>PLoS Computational Biology</i> , 2019, 15, e1006213. | 3.2 | 17 |
| 11 | Enzyme promiscuity shapes adaptation to novel growth substrates. <i>Molecular Systems Biology</i> , 2019, 15, e8462. | 7.2 | 52 |
| 12 | Evolution of gene knockout strains of <i>E. coli</i> reveal regulatory architectures governed by metabolism. <i>Nature Communications</i> , 2018, 9, 3796. | 12.8 | 59 |
| 13 | Growth Adaptation of <i>gnd</i> and <i>sdhCB</i> <i>Escherichia coli</i> Deletion Strains Diverges From a Similar Initial Perturbation of the Transcriptome. <i>Frontiers in Microbiology</i> , 2018, 9, 1793. | 3.5 | 23 |
| 14 | Adaptation to the coupling of glycolysis to toxic methylglyoxal production in <i>tpiA</i> deletion strains of <i>Escherichia coli</i> requires synchronized and counterintuitive genetic changes. <i>Metabolic Engineering</i> , 2018, 48, 82-93. | 7.0 | 38 |
| 15 | Multiple Optimal Phenotypes Overcome Redox and Glycolytic Intermediate Metabolite Imbalances in <i>Escherichia coli pgi</i> Knockout Evolutions. <i>Applied and Environmental Microbiology</i> , 2018, 84, . | 3.1 | 22 |
| 16 | Adaptive laboratory evolution resolves energy depletion to maintain high aromatic metabolite phenotypes in <i>Escherichia coli</i> strains lacking the Phosphotransferase System. <i>Metabolic Engineering</i> , 2018, 48, 233-242. | 7.0 | 43 |
| 17 | Laboratory Evolution to Alternating Substrate Environments Yields Distinct Phenotypic and Genetic Adaptive Strategies. <i>Applied and Environmental Microbiology</i> , 2017, 83, . | 3.1 | 76 |
| 18 | Evolution of <i>E. coli</i> on [U-13C]Glucose Reveals a Negligible Isotopic Influence on Metabolism and Physiology. <i>PLoS ONE</i> , 2016, 11, e0151130. | 2.5 | 54 |

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|----|--|-----|-----------|
| 19 | Use of Adaptive Laboratory Evolution To Discover Key Mutations Enabling Rapid Growth of Escherichia coli K-12 MG1655 on Glucose Minimal Medium. Applied and Environmental Microbiology, 2015, 81, 17-30. | 3.1 | 235 |
| 20 | Evolution of Escherichia coli to 42 Å°C and Subsequent Genetic Engineering Reveals Adaptive Mechanisms and Novel Mutations. Molecular Biology and Evolution, 2014, 31, 2647-2662. | 8.9 | 145 |
| 21 | Fast Metabolic Response to Drug Intervention Through Analysis on a Miniaturized, Highly Integrated Molecular Imaging System. Journal of Nuclear Medicine, 2013, 54, 1820-1824. | 5.0 | 10 |
| 22 | Human Protein Arginine Methyltransferase 7 (PRMT7) Is a Type III Enzyme Forming I%-N-Monomethylated Arginine Residues. Journal of Biological Chemistry, 2012, 287, 7859-7870. | 3.4 | 208 |