

Farren J Isaacs

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1732507/publications.pdf>

Version: 2024-02-01

58
papers

9,082
citations

101384

36
h-index

128067

60
g-index

65
all docs

65
docs citations

65
times ranked

9215
citing authors

#	ARTICLE	IF	CITATIONS
1	Programming cells by multiplex genome engineering and accelerated evolution. <i>Nature</i> , 2009, 460, 894-898.	13.7	1,346
2	Genomically Recoded Organisms Expand Biological Functions. <i>Science</i> , 2013, 342, 357-360.	6.0	721
3	Phenotypic Consequences of Promoter-Mediated Transcriptional Noise. <i>Molecular Cell</i> , 2006, 24, 853-865.	4.5	591
4	Engineered riboregulators enable post-transcriptional control of gene expression. <i>Nature Biotechnology</i> , 2004, 22, 841-847.	9.4	513
5	Precise Manipulation of Chromosomes in Vivo Enables Genome-Wide Codon Replacement. <i>Science</i> , 2011, 333, 348-353.	6.0	512
6	Computational studies of gene regulatory networks: in numero molecular biology. <i>Nature Reviews Genetics</i> , 2001, 2, 268-279.	7.7	508
7	A-to-I RNA editing occurs at over a hundred million genomic sites, located in a majority of human genes. <i>Genome Research</i> , 2014, 24, 365-376.	2.4	492
8	Prediction and measurement of an autoregulatory genetic module. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 7714-7719.	3.3	409
9	RNA synthetic biology. <i>Nature Biotechnology</i> , 2006, 24, 545-554.	9.4	332
10	Recoded organisms engineered to depend on synthetic amino acids. <i>Nature</i> , 2015, 518, 89-93.	13.7	288
11	Engineering an allosteric transcription factor to respond to new ligands. <i>Nature Methods</i> , 2016, 13, 177-183.	9.0	274
12	The real cost of sequencing: scaling computation to keep pace with data generation. <i>Genome Biology</i> , 2016, 17, 53.	3.8	264
13	Evolution of translation machinery in recoded bacteria enables multi-site incorporation of nonstandard amino acids. <i>Nature Biotechnology</i> , 2015, 33, 1272-1279.	9.4	234
14	The Genome Project-Write. <i>Science</i> , 2016, 353, 126-127.	6.0	194
15	Potent Noncovalent Inhibitors of the Main Protease of SARS-CoV-2 from Molecular Sculpting of the Drug Perampanel Guided by Free Energy Perturbation Calculations. <i>ACS Central Science</i> , 2021, 7, 467-475.	5.3	182
16	Tracking, tuning, and terminating microbial physiology using synthetic riboregulators. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 15898-15903.	3.3	166
17	Cell-free protein synthesis from genomically recoded bacteria enables multisite incorporation of noncanonical amino acids. <i>Nature Communications</i> , 2018, 9, 1203.	5.8	165
18	Cell-free Protein Synthesis from a Release Factor 1 Deficient <i>Escherichia coli</i> Activates Efficient and Multiple Site-specific Nonstandard Amino Acid Incorporation. <i>ACS Synthetic Biology</i> , 2014, 3, 398-409.	1.9	133

#	ARTICLE	IF	CITATIONS
19	Multilayered genetic safeguards limit growth of microorganisms to defined environments. <i>Nucleic Acids Research</i> , 2015, 43, 1945-1954.	6.5	112
20	Hydrogel-based biocontainment of bacteria for continuous sensing and computation. <i>Nature Chemical Biology</i> , 2021, 17, 724-731.	3.9	110
21	Robust production of recombinant phosphoproteins using cell-free protein synthesis. <i>Nature Communications</i> , 2015, 6, 8168.	5.8	106
22	Rapid editing and evolution of bacterial genomes using libraries of synthetic DNA. <i>Nature Protocols</i> , 2014, 9, 2301-2316.	5.5	101
23	Crystal Structure of an Insect Antifreeze Protein and Its Implications for Ice Binding. <i>Journal of Biological Chemistry</i> , 2013, 288, 12295-12304.	1.6	96
24	Precise Editing at DNA Replication Forks Enables Multiplex Genome Engineering in Eukaryotes. <i>Cell</i> , 2017, 171, 1453-1467.e13.	13.5	93
25	Enhanced phosphoserine insertion during <i>Escherichia coli</i> protein synthesis via partial UAG codon reassignment and release factor 1 deletion. <i>FEBS Letters</i> , 2012, 586, 3716-3722.	1.3	91
26	Enhanced multiplex genome engineering through co-operative oligonucleotide co-selection. <i>Nucleic Acids Research</i> , 2012, 40, e132-e132.	6.5	89
27	A flexible codon in genomically recoded <i>Escherichia coli</i> permits programmable protein phosphorylation. <i>Nature Communications</i> , 2015, 6, 8130.	5.8	86
28	Active Targeting of Cancer Cells by Nanobody Decorated Polypeptide Micelle with Bio-orthogonally Conjugated Drug. <i>Nano Letters</i> , 2019, 19, 247-254.	4.5	72
29	Repurposing the translation apparatus for synthetic biology. <i>Current Opinion in Chemical Biology</i> , 2015, 28, 83-90.	2.8	69
30	Next-generation genetic code expansion. <i>Current Opinion in Chemical Biology</i> , 2018, 46, 203-211.	2.8	57
31	Photo-crosslinkable Unnatural Amino Acids Enable Facile Synthesis of Thermoresponsive Nano-to Microgels of Intrinsically Disordered Polypeptides. <i>Advanced Materials</i> , 2018, 30, 1704878.	11.1	56
32	Translation system engineering in <i>Escherichia coli</i> enhances non-canonical amino acid incorporation into proteins. <i>Biotechnology and Bioengineering</i> , 2017, 114, 1074-1086.	1.7	49
33	Emergent rules for codon choice elucidated by editing rare arginine codons in <i>Escherichia coli</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E5588-97.	3.3	48
34	Recombineering and MAGE. <i>Nature Reviews Methods Primers</i> , 2021, 1, .	11.8	47
35	Precise manipulation of bacterial chromosomes by conjugative assembly genome engineering. <i>Nature Protocols</i> , 2014, 9, 2285-2300.	5.5	43
36	Genomes by design. <i>Nature Reviews Genetics</i> , 2015, 16, 501-516.	7.7	41

#	ARTICLE	IF	CITATIONS
37	Genomic Recoding Broadly Obstructs the Propagation of Horizontally Transferred Genetic Elements. <i>Cell Systems</i> , 2016, 3, 199-207.	2.9	40
38	Optimization of Triarylpyridinone Inhibitors of the Main Protease of SARS-CoV-2 to Low-Nanomolar Antiviral Potency. <i>ACS Medicinal Chemistry Letters</i> , 2021, 12, 1325-1332.	1.3	37
39	Rational optimization of <i>tolC</i> as a powerful dual selectable marker for genome engineering. <i>Nucleic Acids Research</i> , 2014, 42, 4779-4790.	6.5	36
40	Encoding human serine phosphopeptides in bacteria for proteome-wide identification of phosphorylation-dependent interactions. <i>Nature Biotechnology</i> , 2018, 36, 638-644.	9.4	30
41	Protein nanowires with tunable functionality and programmable self-assembly using sequence-controlled synthesis. <i>Nature Communications</i> , 2022, 13, 829.	5.8	30
42	MOLECULAR BIOLOGY: Signal Processing in Single Cells. <i>Science</i> , 2005, 307, 1886-1888.	6.0	22
43	Designed Phosphoprotein Recognition in <i>Escherichia coli</i> . <i>ACS Chemical Biology</i> , 2014, 9, 2502-2507.	1.6	20
44	Plug-and-play with RNA. <i>Nature Biotechnology</i> , 2005, 23, 306-307.	9.4	19
45	Tuning protein half-life in mouse using sequence-defined biopolymers functionalized with lipids. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	17
46	Cross-kingdom expression of synthetic genetic elements promotes discovery of metabolites in the human microbiome. <i>Cell</i> , 2022, 185, 1487-1505.e14.	13.5	17
47	The Role of Orthogonality in Genetic Code Expansion. <i>Life</i> , 2019, 9, 58.	1.1	16
48	Organisms with alternative genetic codes resolve unassigned codons via mistranslation and ribosomal rescue. <i>ELife</i> , 2018, 7, .	2.8	16
49	Merlin: Computer-Aided Oligonucleotide Design for Large Scale Genome Engineering with MAGE. <i>ACS Synthetic Biology</i> , 2016, 5, 452-458.	1.9	11
50	ZTCG: Viruses expand the genetic alphabet. <i>Science</i> , 2021, 372, 460-461.	6.0	10
51	Guiding Ethical Principles in Engineering Biology Research. <i>ACS Synthetic Biology</i> , 2021, 10, 907-910.	1.9	10
52	DNA-Origami-Based Fluorescence Brightness Standards for Convenient and Fast Protein Counting in Live Cells. <i>Nano Letters</i> , 2020, 20, 8890-8896.	4.5	8
53	Targeted editing and evolution of engineered ribosomes in vivo by filtered editing. <i>Nature Communications</i> , 2022, 13, 180.	5.8	6
54	Making Security Viral: Shifting Engineering Biology Culture and Publishing. <i>ACS Synthetic Biology</i> , 2022, 11, 522-527.	1.9	6

#	ARTICLE	IF	CITATIONS
55	Phosphorylated WNK kinase networks in recoded bacteria recapitulate physiological function. <i>Cell Reports</i> , 2021, 36, 109416.	2.9	5
56	Automated design of RNA devices. <i>Nature Chemical Biology</i> , 2012, 8, 413-415.	3.9	2
57	Chemoselective restoration of para-azido-phenylalanine at multiple sites in proteins. <i>Cell Chemical Biology</i> , 2022, 29, 1046-1052.e4.	2.5	2
58	Computational design and engineering of an <i>Escherichia coli</i> strain producing the nonstandard amino acid para-aminophenylalanine. <i>IScience</i> , 2022, 25, 104562.	1.9	1