Julius B Lucks

List of Publications by Year
in descending order

61 papers	4,396 citations	117625 34 h-index	133252 59 g-index
88 all docs	88 docs citations	88 times ranked	3019 citing authors

#	Article	IF	Citations
1	ROSALIND: Rapid Detection of Chemical Contaminants with Factor-Based. Methods in Molecular Biology, 2022, 2433, 325-342.	0.9	3
2	Cotranscriptional RNA strand exchange underlies the gene regulation mechanism in a purine-sensing transcriptional riboswitch. Nucleic Acids Research, 2022, 50, 12001-12018.	14.5	18
3	Programming cell-free biosensors with DNA strand displacement circuits. Nature Chemical Biology, 2022, 18, 385-393.	8.0	59
4	How does RNA fold dynamically?. Journal of Molecular Biology, 2022, 434, 167665.	4.2	23
5	Engineering a Synthetic Dopamine-Responsive Riboswitch for <i>In Vitro</i> Biosensing. ACS Synthetic Biology, 2022, 11, 2275-2283.	3.8	9
6	Computationally reconstructing cotranscriptional RNA folding from experimental data reveals rearrangement of non-native folding intermediates. Molecular Cell, 2021, 81, 870-883.e10.	9.7	60
7	Dynamic Control of Gene Expression with Riboregulated Switchable Feedback Promoters. ACS Synthetic Biology, 2021, 10, 1199-1213.	3.8	19
8	RNA Sequence and Structure Determinants of Pol III Transcriptional Termination in Human Cells. Journal of Molecular Biology, 2021, 433, 166978.	4.2	4
9	RNA Engineering for Public Health: Innovations in RNA-Based Diagnostics and Therapeutics. Annual Review of Chemical and Biomolecular Engineering, 2021, 12, 263-286.	6.8	8
10	Point-of-Use Detection of Environmental Fluoride <i>via</i> a Cell-Free Riboswitch-Based Biosensor. ACS Synthetic Biology, 2020, 9, 10-18.	3.8	116
11	Design of a Transcriptional Biosensor for the Portable, On-Demand Detection of Cyanuric Acid. ACS Synthetic Biology, 2020, 9, 84-94.	3.8	51
12	Chemical roadblocking of DNA transcription for nascent RNA display. Journal of Biological Chemistry, 2020, 295, 6401-6412.	3.4	16
13	Cell-free biosensors for rapid detection of water contaminants. Nature Biotechnology, 2020, 38, 1451-1459.	17.5	221
14	Design and Optimization of a Cell-Free Atrazine Biosensor. ACS Synthetic Biology, 2020, 9, 671-677.	3.8	75
15	A primer on emerging field-deployable synthetic biology tools for global water quality monitoring. Npj Clean Water, 2020, 3, .	8.0	53
16	DUETT quantitatively identifies known and novel events in nascent RNA structural dynamics from chemical probing data. Bioinformatics, 2019, 35, 5103-5112.	4.1	4
17	Computational design of three-dimensional RNA structure and function. Nature Nanotechnology, 2019, 14, 866-873.	31.5	49
18	De novo-designed translation-repressing riboregulators for multi-input cellular logic. Nature Chemical Biology, 2019, 15, 1173-1182.	8.0	90

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19	Tracking RNA structures as RNAs transit through the cell. Nature Structural and Molecular Biology, 2019, 26, 256-257.	8.2	3
20	PLANT-Dx: A Molecular Diagnostic for Point-of-Use Detection of Plant Pathogens. ACS Synthetic Biology, 2019, 8, 902-905.	3.8	45
21	Organism Engineering for the Bioproduction of the Triaminotrinitrobenzene (TATB) Precursor Phloroglucinol (PG). ACS Synthetic Biology, 2019, 8, 2746-2755.	3.8	19
22	A ligand-gated strand displacement mechanism for ZTP riboswitch transcription control. Nature Chemical Biology, 2019, 15, 1067-1076.	8.0	47
23	Deconstructing Cell-Free Extract Preparation for <i>in Vitro</i> Activation of Transcriptional Genetic Circuitry. ACS Synthetic Biology, 2019, 8, 403-414.	3.8	102
24	Elements of RNA Design. Biochemistry, 2019, 58, 1457-1459.	2.5	6
25	Distinct timescales of RNA regulators enable the construction of a genetic pulse generator. Biotechnology and Bioengineering, 2019, 116, 1139-1151.	3.3	40
26	Probing of RNA structures in a positive sense RNA virus reveals selection pressures for structural elements. Nucleic Acids Research, 2018, 46, 2573-2584.	14.5	21
27	A flow cytometric approach to engineering Escherichia coli for improved eukaryotic protein glycosylation. Metabolic Engineering, 2018, 47, 488-495.	7.0	30
28	Mathematical Modeling of RNA-Based Architectures for Closed Loop Control of Gene Expression. ACS Synthetic Biology, 2018, 7, 1219-1228.	3.8	42
29	SnapShot: RNA Structure Probing Technologies. Cell, 2018, 175, 600-600.e1.	28.9	12
30	High-throughput determination of RNA structures. Nature Reviews Genetics, 2018, 19, 615-634.	16.3	140
31	Engineering a Functional Small RNA Negative Autoregulation Network with Model-Guided Design. ACS Synthetic Biology, 2018, 7, 1507-1518.	3.8	32
32	Achieving large dynamic range control of gene expression with a compact RNA transcriptionâ€"translation regulator. Nucleic Acids Research, 2017, 45, 5614-5624.	14.5	43
33	Computational design of small transcription activating RNAs for versatile and dynamic gene regulation. Nature Communications, 2017, 8, 1051.	12.8	113
34	Characterizing the Structureâ€"Function Relationship of a Naturally Occurring RNA Thermometer. Biochemistry, 2017, 56, 6629-6638.	2.5	18
35	Distributed biotinâ€"streptavidin transcription roadblocks for mapping cotranscriptional RNA folding. Nucleic Acids Research, 2017, 45, e109-e109.	14.5	38
36	Turning It Up to 11: Modular Proteins Amplify RNA Sensors for Sophisticated Circuitry. Cell Systems, 2016, 3, 509-511.	6.2	0

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37	Improving fold activation of small transcription activating RNAs (STARs) with rational RNA engineering strategies. Biotechnology and Bioengineering, 2016, 113, 216-225.	3.3	36
38	Using in-cell SHAPE-Seq and simulations to probe structureâ€“function design principles of RNA transcriptional regulators. Rna, 2016, 22, 920-933.	3.5	34
39	Characterizing RNA structures in vitro and in vivo with selective 2â€²-hydroxyl acylation analyzed by primer extension sequencing (SHAPE-Seq). Methods, 2016, 103, 34-48.	3.8	70
40	RNA systems biology: uniting functional discoveries and structural tools to understand global roles of RNAs. Current Opinion in Biotechnology, 2016, 39, 182-191.	6.6	54
41	Mapping RNA Structure In Vitro with SHAPE Chemistry and Next-Generation Sequencing (SHAPE-Seq). Methods in Molecular Biology, 2016, 1490, 135-162.	0.9	17
42	Cotranscriptional folding of a riboswitch at nucleotide resolution. Nature Structural and Molecular Biology, 2016, 23, 1124-1131.	8.2	163
43	Engineered Protein Machines: Emergent Tools for Synthetic Biology. Cell Chemical Biology, 2016, 23, 45-56.	5.2	15
44	Simultaneous characterization of cellular RNA structure and function with in-cell SHAPE-Seq. Nucleic Acids Research, 2016, 44, e12-e12.	14.5	76
45	Rapidly Characterizing the Fast Dynamics of RNA Genetic Circuitry with Cell-Free Transcriptionâ€“Translation (TX-TL) Systems. ACS Synthetic Biology, 2015, 4, 503-515.	3.8	154
46	Creating small transcription activating RNAs. Nature Chemical Biology, 2015, 11, 214-220.	8.0	220
47	A renaissance in RNA synthetic biology: new mechanisms, applications and tools for the future. Current Opinion in Chemical Biology, 2015, 28, 47-56.	6.1	140
48	Characterizing and prototyping genetic networks with cell-free transcriptionâ€“translation reactions. Methods, 2015, 86, 60-72.	3.8	112
49	Generating Effective Models and Parameters for RNA Genetic Circuits. ACS Synthetic Biology, 2015, 4, 914-926.	3.8	45
50	SHAPE-Seq 2.0: systematic optimization and extension of high-throughput chemical probing of RNA secondary structure with next generation sequencing. Nucleic Acids Research, 2014, 42, e165-e165.	14.5	119
51	The centrality of RNA for engineering gene expression. Biotechnology Journal, 2013, 8, 1379-1395.	3.5	76
52	A modular strategy for engineering orthogonal chimeric RNA transcription regulators. Nucleic Acids Research, 2013, 41, 7577-7588.	14.5	81
53	An RNA Mapping DataBase for curating RNA structure mapping experiments. Bioinformatics, 2012, 28, 3006-3008.	4.1	93
54	Engineering naturally occurring trans -acting non-coding RNAs to sense molecular signals. Nucleic Acids Research, 2012, 40, 5775-5786.	14.5	87

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55	An adaptor from translational to transcriptional control enables predictable assembly of complex regulation. Nature Methods, 2012, 9, 1088-1094.	19.0	67
56	Rationally designed families of orthogonal RNA regulators of translation. Nature Chemical Biology, 2012, 8, 447-454.	8.0	157
57	Multiplexed RNA structure characterization with selective 2â€²-hydroxyl acylation analyzed by primer extension sequencing (SHAPE-Seq). Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11063-11068.	7.1	346
58	Modeling and automation of sequencing-based characterization of RNA structure. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11069-11074.	7.1	109
59	Versatile RNA-sensing transcriptional regulators for engineering genetic networks. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8617-8622.	7.1	277
60	RNA structure characterization from chemical mapping experiments. , 2011, , .		34
61	Toward scalable parts families for predictable design of biological circuits. Current Opinion in Microbiology, 2008, 11, 567-573.	5.1	106