IlyaÂ J Finkelstein

List of Publications by Year
in descending order

64	4,528	159585 30	133252 59
papers	citations	h-index	g-index

96	96	96	7392
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Compartmentalization of telomeres through DNA-scaffolded phase separation. Developmental Cell, 2022, 57, 277-290.e9.	7.0	38
2	How Glutamate Promotes Liquid-liquid Phase Separation and DNA Binding Cooperativity of E. coli SSB Protein. Journal of Molecular Biology, 2022, 434, 167562.	4.2	25
3	Polymerase theta-helicase promotes end joining by stripping single-stranded DNA-binding proteins and bridging DNA ends. Nucleic Acids Research, 2022, 50, 3911-3921.	14.5	17
4	A kinetic model predicts SpCas9 activity, improves off-target classification, and reveals the physical basis of targeting fidelity. Nature Communications, 2022, 13, 1367.	12.8	15
5	Massively parallel kinetic profiling of natural and engineered CRISPR nucleases. Nature Biotechnology, 2021, 39, 84-93.	17.5	80
6	Characterization of the T4 gp32â€“ssDNA complex by native, cross-linking, and ultraviolet photodissociation mass spectrometry. Chemical Science, 2021, 12, 13764-13776.	7.4	3
7	Inhibition of CRISPR-Cas12a DNA targeting by nucleosomes and chromatin. Science Advances, 2021, 7, .	10.3	30
8	CRISPR-Guided Programmable Self-Assembly of Artificial Virus-Like Nucleocapsids. Nano Letters, 2021, 21, 2752-2757.	9.1	18
9	Prevalent, protective, and convergent IgG recognition of SARS-CoV-2 non-RBD spike epitopes. Science, 2021, 372, 1108-1112.	12.6	210
10	Sequence Analysis of 20,453 Severe Acute Respiratory Syndrome Coronavirus 2 Genomes from the Houston Metropolitan Area Identifies the Emergence and Widespread Distribution of Multiple Isolates of All Major Variants of Concern. American Journal of Pathology, 2021, 191, 983-992.	3.8	42
11	Disintegration promotes protospacer integration by the Cas1-Cas2 complex. ELife, 2021, 10, .	6.0	5
12	Trajectory of Growth of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Variants in Houston, Texas, January through May 2021, Based on 12,476 Genome Sequences. American Journal of Pathology, 2021, 191, 1754-1773.	3.8	26
13	Expression and characterization of SARS-CoV-2 spike proteins. Nature Protocols, 2021, 16, 5339-5356.	12.0	31
14	Opfi: A Python package for identifying gene clusters in large genomics and metagenomics data sets. Journal of Open Source Software, 2021, 6, 3678.	4.6	2
15	Metagenomic discovery of CRISPR-associated transposons. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	38
16	Rapid characterization of spike variants via mammalian cell surface display. Molecular Cell, 2021, 81, 5099-5111.e8.	9.7	32
17	HEDGES error-correcting code for DNA storage corrects indels and allows sequence constraints. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18489-18496.	7.1	75
18	Structure-based design of prefusion-stabilized SARS-CoV-2 spikes. Science, 2020, 369, 1501-1505.	12.6	977

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19	Epigenetic cell fate in Candida albicans is controlled by transcription factor condensates acting at super-enhancer-like elements. Nature Microbiology, 2020, 5, 1374-1389.	13.3	34
20	Molecular Architecture of Early Dissemination and Massive Second Wave of the SARS-CoV-2 Virus in a Major Metropolitan Area. MBio, 2020, 11, .	4.1	99
21	RADX condenses single-stranded DNA to antagonize RAD51 loading. Nucleic Acids Research, 2020, 48, 7834-7843.	14.5	20
22	DNA-dependent protein kinase promotes DNA end processing by MRN and CtIP. Science Advances, 2020, 6, eaay0922.	10.3	92
23	Intrinsically disordered regions regulate both catalytic and non-catalytic activities of the MutLÎ± mismatch repair complex. Nucleic Acids Research, 2019, 47, 1823-1835.	14.5	24
24	Poly(ADP-ribose) polymerase-1 antagonizes DNA resection at double-strand breaks. Nature Communications, 2019, 10, 2954.	12.8	122
25	Systematic Discovery of Endogenous Human Ribonucleoprotein Complexes. Cell Reports, 2019, 29, 1351-1368.e5.	6.4	53
26	Retrons and their applications in genome engineering. Nucleic Acids Research, 2019, 47, 11007-11019.	14.5	60
27	Sortase-mediated fluorescent labeling of CRISPR complexes. Methods in Enzymology, 2019, 616, 43-59.	1.0	10
28	Purification and Biophysical Characterization of the Mre11-Rad50-Nbs1 Complex. Methods in Molecular Biology, 2019, 2004, 269-287.	0.9	6
29	Assembling the Human Resectosome on DNA Curtains. Methods in Molecular Biology, 2019, 1999, 225-244.	0.9	5
30	RPA Phosphorylation Inhibits DNA Resection. Molecular Cell, 2019, 75, 145-153.e5.	9.7	73
31	Human cohesin compacts DNA by loop extrusion. Science, 2019, 366, 1345-1349.	12.6	513
32	High-throughput activator sequence selection for silver nanocluster beacons. , 2019, , .		2
33	Functional metagenomics-guided discovery of potent Cas9 inhibitors in the human microbiome. ELife, 2019, 8, .	6.0	56
34	Phage Mu Gam protein promotes NHEJ in concert with Escherichia coli ligase. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11614-E11622.	7.1	26
35	Assembly and Translocation of a CRISPR-Cas Primed Acquisition Complex. Cell, 2018, 175, 934-946.e15.	28.9	74
36	Coordination of Rad1â€“Rad10 interactions with Msh2â€“Msh3, Saw1 and RPA is essential for functional 3â€² non-homologous tail removal. Nucleic Acids Research, 2018, 46, 5075-5096.	14.5	10

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37	Distinct roles of XPF-ERCC1 and Rad1-Rad10-Saw1 in replication-coupled and uncoupled inter-strand crosslink repair. Nature Communications, 2018, 9, 2025.	12.8	13
38	Kinetic Basis for DNA Target Specificity of CRISPR-Cas12a. Molecular Cell, 2018, 71, 816-824.e3.	9.7	225
39	Assessing Protein Dynamics on Low-Complexity Single-Stranded DNA Curtains. Langmuir, 2018, 34, 14882-14890.	3.5	16
40	Indel-correcting DNA barcodes for high-throughput sequencing. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E6217-E6226.	7.1	54
41	A Microfluidic Device for Massively Parallel, Whole-lifespan Imaging of Single Fission Yeast Cells. Bio-protocol, 2018, 8, .	0.4	3
42	Noncoding RNA-nucleated heterochromatin spreading is intrinsically labile and requires accessory elements for epigenetic stability. ELife, 2018, 7, .	6.0	30
43	Single-Molecule Imaging Reveals How Mre11-Rad50-Nbs1 Initiates DNA Break Repair. Molecular Cell, 2017, 67, 891-898.e4.	9.7	156
44	Efficient modification of Î»-DNA substrates for single-molecule studies. Scientific Reports, 2017, 7, 2071.	3.3	19
45	Massively Parallel Biophysical Analysis of CRISPR-Cas Complexes on Next Generation Sequencing Chips. Cell, 2017, 170, 35-47.e13.	28.9	96
46	Eukaryotic resectosomes: A single-molecule perspective. Progress in Biophysics and Molecular Biology, 2017, 127, 119-129.	2.9	9
47	Next-Generation DNA Curtains for Single-Molecule Studies of Homologous Recombination. Methods in Enzymology, 2017, 592, 259-281.	1.0	26
48	An aging-independent replicative lifespan in a symmetrically dividing eukaryote. ELife, 2017, 6, .	6.0	30
49	Conserved Sequence Preferences Contribute to Substrate Recognition by the Proteasome. Journal of Biological Chemistry, 2016, 291, 14526-14539.	3.4	56
50	Single-molecule imaging reveals the mechanism of Exo1 regulation by single-stranded DNA binding proteins. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1170-9.	7.1	81
51	Dynamic DNA binding licenses a repair factor to bypass roadblocks in search of DNA lesions. Nature Communications, 2016, 7, 10607.	12.8	44
52	High-Throughput Universal DNA Curtain Arrays for Single-Molecule Fluorescence Imaging. Langmuir, 2015, 31, 10310-10317.	3.5	59
53	Nucleosome Acidic Patch Promotes RNF168- and RING1B/BMI1-Dependent H2AX and H2A Ubiquitination and DNA Damage Signaling. PLoS Genetics, 2014, 10, e1004178.	3.5	83
54	Single-Molecule Imaging of FtsK Translocation Reveals Mechanistic Features of Protein-Protein Collisions on DNA. Molecular Cell, 2014, 54, 832-843.	9.7	58

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55	3D-Printed Microfluidic Microdissector for High-Throughput Studies of Cellular Aging. Analytical Chemistry, 2014, 86, 7406-7412.	6.5	50
56	Rapid Prototyping of Multichannel Microfluidic Devices for Single-Molecule DNA Curtain Imaging. Analytical Chemistry, 2014, 86, 4157-4163.	6.5	16
57	Highâ€throughput singleâ€molecule studies of proteinâ€“DNA interactions. FEBS Letters, 2014, 588, 3539-3546.	2.8	15
58	Molecular Traffic Jams on DNA. Annual Review of Biophysics, 2013, 42, 241-263.	10.0	34
59	Single-molecule imaging of DNA curtains reveals mechanisms of KOPS sequence targeting by the DNA translocase FtsK. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6531-6536.	7.1	56
60	Single-Stranded DNA Curtains for Real-Time Single-Molecule Visualization of Proteinâ€“Nucleic Acid Interactions. Analytical Chemistry, 2012, 84, 7607-7612.	6.5	70
61	Supported Lipid Bilayers and DNA Curtains for High-Throughput Single-Molecule Studies. Methods in Molecular Biology, 2011, 745, 447-461.	0.9	30
62	Single-molecule imaging reveals mechanisms of protein disruption by a DNA translocase. Nature, 2010, 468, 983-987.	27.8	153
63	XPD Helicase Speeds through a Molecular Traffic Jam. Molecular Cell, 2009, 35, 549-550.	9.7	2
64	Single molecule studies of homologous recombination. Molecular BioSystems, 2008, 4, 1094.	2.9	17