David R Liu

List of Publications by Year
in descending order

82	24,422	38660 50	54797 84
papers	citations	h-index	g-index

91	91	91	24239
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Programmable editing of a target base in genomic DNA without double-stranded DNA cleavage. Nature, 2016, 533, 420-424.	13.7	3,662
2	Programmable base editing of Aâ€¢T to Gâ€¢C in genomic DNA without DNA cleavage. Nature, 2017, 551, 464-471.	13.7	2,807
3	Search-and-replace genome editing without double-strand breaks or donor DNA. Nature, 2019, 576, 149-157.	13.7	2,662
4	Ipilimumab versus placebo after radiotherapy in patients with metastatic castration-resistant prostate cancer that had progressed after docetaxel chemotherapy (CA184-043): a multicentre, randomised, double-blind, phase 3 trial. Lancet Oncology, The, 2014, 15, 700-712.	5.1	1,280
5	Genome editing with CRISPRâ€“Cas nucleases, base editors, transposases and prime editors. Nature Biotechnology, 2020, 38, 824-844.	9.4	1,277
6	Evolved Cas9 variants with broad PAM compatibility and high DNA specificity. Nature, 2018, 556, 57-63.	13.7	1,195
7	A Cancer Cell Program Promotes T Cell Exclusion and Resistance to Checkpoint Blockade. Cell, 2018, 175, 984-997.e24.	13.5	892
8	CRISPResso2 provides accurate and rapid genome editing sequence analysis. Nature Biotechnology, 2019, 37, 224-226.	9.4	891
9	CRISPR-Based Technologies for the Manipulation of Eukaryotic Genomes. Cell, 2017, 168, 20-36.	13.5	783
10	Methods for the directed evolution of proteins. Nature Reviews Genetics, 2015, 16, 379-394.	7.7	699
11	The long tail of oncogenic drivers in prostate cancer. Nature Genetics, 2018, 50, 645-651.	9.4	601
12	Integrative molecular and clinical modeling of clinical outcomes to PD1 blockade in patients with metastatic melanoma. Nature Medicine, 2019, 25, 1916-1927.	15.2	541
13	A system for the continuous directed evolution of biomolecules. Nature, 2011, 472, 499-503.	13.7	518
14	Phage-assisted evolution of an adenine base editor with improved Cas domain compatibility and activity. Nature Biotechnology, 2020, 38, 883-891.	9.4	502
15	Genomic correlates of response to immune checkpoint blockade in microsatellite-stable solid tumors. Nature Genetics, 2018, 50, 1271-1281.	9.4	438
16	Enhanced prime editing systems by manipulating cellular determinants of editing outcomes. Cell, 2021, 184, 5635-5652.e29.	13.5	332
17	Engineered pegRNAs improve prime editing efficiency. Nature Biotechnology, 2022, 40, 402-410.	9.4	293
18	In vivo base editing rescues Hutchinsonâ€“Gilford progeria syndrome in mice. Nature, 2021, 589, 608-614.	13.7	275

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19	Continuous evolution of SpCas9 variants compatible with non-G PAMs. Nature Biotechnology, 2020, 38, 471-481.	9.4	234
20	Programmable deletion, replacement, integration and inversion of large DNA sequences with twin prime editing. Nature Biotechnology, 2022, 40, 731-740.	9.4	230
21	Continuous evolution of base editors with expanded target compatibility and improved activity. Nature Biotechnology, 2019, 37, 1070-1079.	9.4	215
22	Clinical Validation of Chemotherapy Response BiomarkerERCC2in Muscle-Invasive Urothelial Bladder Carcinoma. JAMA Oncology, 2016, 2, 1094.	3.4	205
23	Continuous directed evolution of aminoacyl-tRNA synthetases. Nature Chemical Biology, 2017, 13, 1253-1260.	3.9	185
24	Identification of cancer driver genes based on nucleotide context. Nature Genetics, 2020, 52, 208-218.	9.4	170
25	Continuous evolution of Bacillus thuringiensis toxins overcomes insect resistance. Nature, 2016, 533, 58-63.	13.7	159
26	Biologically informed deep neural network for prostate cancer discovery. Nature, 2021, 598, 348-352.	13.7	158
27	Immunogenomic analyses associate immunological alterations with mismatch repair defects in prostate cancer. Journal of Clinical Investigation, 2018, 128, 4441-4453.	3.9	155
28	The impact of tumor profiling approaches and genomic data strategies for cancer precision medicine. Genome Medicine, 2016, 8, 79.	3.6	151
29	Precision Oncology: Who, How, What, When, and When Not?. American Society of Clinical Oncology Educational Book / ASCO American Society of Clinical Oncology Meeting, 2017, 37, 160-169.	1.8	151
30	Development of potent in vivo mutagenesis plasmids with broad mutational spectra. Nature Communications, 2015, 6, 8425.	5.8	138
31	Therapeutic inÂvivo delivery of gene editing agents. Cell, 2022, 185, 2806-2827.	13.5	131
32	Negative selection and stringency modulation in phage-assisted continuous evolution. Nature Chemical Biology, 2014, 10, 216-222.	3.9	129
33	ERCC2 Helicase Domain Mutations Confer Nucleotide Excision Repair Deficiency and Drive Cisplatin Sensitivity in Muscle-Invasive Bladder Cancer. Clinical Cancer Research, 2019, 25, 977-988.	3.2	104
34	Mutational patterns in chemotherapy resistant muscle-invasive bladder cancer. Nature Communications, 2017, 8, 2193.	5.8	99
35	Experimental interrogation of the path dependence and stochasticity of protein evolution using phage-assisted continuous evolution. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9007-9012.	3.3	92
36	Transcriptional mediators of treatment resistance in lethal prostate cancer. Nature Medicine, 2021, 27, 426-433.	15.2	90

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37	Continuous directed evolution of DNA-binding proteins to improve TALEN specificity. Nature Methods, 2015, 12, 939-942.	9.0	88
38	InÂvivo somatic cell base editing and prime editing. Molecular Therapy, 2021, 29, 3107-3124.	3.7	87
39	Phage-assisted continuous evolution of proteases with altered substrate specificity. Nature Communications, 2017, 8, 956.	5.8	85
40	Evolution of sequence-defined highly functionalized nucleic acid polymers. Nature Chemistry, 2018, 10, 420-427.	6.6	83
41	Mechanisms of Resistance to Immune Checkpoint Blockade. American Journal of Clinical Dermatology, 2019, 20, 41-54.	3.3	83
42	A system for the continuous directed evolution of proteases rapidly reveals drug-resistance mutations. Nature Communications, 2014, 5, 5352.	5.8	82
43	The developing toolkit of continuous directed evolution. Nature Chemical Biology, 2020, 16, 610-619.	3.9	80
44	Continuous directed evolution of proteins with improved soluble expression. Nature Chemical Biology, 2018, 14, 972-980.	3.9	71
45	ATM Loss Confers Greater Sensitivity to ATR Inhibition Than PARP Inhibition in Prostate Cancer. Cancer Research, 2020, 80, 2094-2100.	0.4	71
46	Evolution of delayed resistance to immunotherapy in a melanoma responder. Nature Medicine, 2021, 27, 985-992.	15.2	67
47	In vivo continuous directed evolution. Current Opinion in Chemical Biology, 2015, 24, 1-10.	2.8	65
48	Mitochondrial DAMPs Are Released During Cardiopulmonary Bypass Surgery and Are Associated With Postoperative Atrial Fibrillation. Heart Lung and Circulation, 2018, 27, 122-129.	0.2	64
49	Integrative Molecular Characterization of Resistance to Neoadjuvant Chemoradiation in Rectal Cancer. Clinical Cancer Research, 2019, 25, 5561-5571.	3.2	64
50	Prime editing in mice reveals the essentiality of a single base in driving tissue-specific gene expression. Genome Biology, 2021, 22, 83.	3.8	62
51	Phage-Assisted Evolution of Bacillus methanolicus Methanol Dehydrogenase 2. ACS Synthetic Biology, 2019, 8, 796-806.	1.9	61
52	Intrinsic Resistance to Immune Checkpoint Blockade in a Mismatch Repairâ€“Deficient Colorectal Cancer. Cancer Immunology Research, 2019, 7, 1230-1236.	1.6	59
53	Harmonization of Tumor Mutational Burden Quantification and Association With Response to Immune Checkpoint Blockade in Nonâ€“Small-Cell Lung Cancer. JCO Precision Oncology, 2019, 3, 1-12.	1.5	58
54	Inactivation of Fbxw7 Impairs dsRNA Sensing and Confers Resistance to PD-1 Blockade. Cancer Discovery, 2020, 10, 1296-1311.	7.7	49

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55	A programmable Cas9-serine recombinase fusion protein that operates on DNA sequences in mammalian cells. Nucleic Acids Research, 2016, 44, gkw707.	6.5	46
56	Phage-assisted evolution of botulinum neurotoxin proteases with reprogrammed specificity. Science, 2021, 371, 803-810.	6.0	46
57	CREB5 Promotes Resistance to Androgen-Receptor Antagonists and Androgen Deprivation in Prostate Cancer. Cell Reports, 2019, 29, 2355-2370.e6.	2.9	45
58	Active Surveillance Versus Surgery for Low Risk Prostate Cancer: A Clinical Decision Analysis. Journal of Urology, 2012, 187, 1241-1246.	0.2	44
59	Phage-assisted continuous and non-continuous evolution. Nature Protocols, 2020, 15, 4101-4127.	5.5	42
60	Integrated molecular drivers coordinate biological and clinical states in melanoma. Nature Genetics, 2020, 52, 1373-1383.	9.4	36
61	Dynamic single-cell RNA sequencing identifies immunotherapy persister cells following PD-1 blockade. Journal of Clinical Investigation, 2021, 131, .	3.9	35
62	Thiamine as an adjunctive therapy in cardiac surgery: a randomized, double-blind, placebo-controlled, phase II trial. Critical Care, 2016, 20, 92.	2.5	34
63	Balloon Post-Dilation Following Implantation of a Self-Expanding Transcatheter Aortic ValveÂBioprosthesis. JACC: Cardiovascular Interventions, 2017, 10, 168-175.	1.1	33
64	Mitochondrial Dysfunction in Atrial Tissue of Patients Developing Postoperative Atrial Fibrillation. Annals of Thoracic Surgery, 2017, 104, 1547-1555.	0.7	33
65	Targeting the innate immunoreceptor RIG-I overcomes melanoma-intrinsic resistance to T cell immunotherapy. Journal of Clinical Investigation, 2020, 130, 4266-4281.	3.9	27
66	High-resolution specificity profiling and off-target prediction for site-specific DNA recombinases. Nature Communications, 2019, 10, 1937.	5.8	22
67	STAG2 regulates interferon signaling in melanoma via enhancer loop reprogramming. Nature Communications, 2022, 13, 1859.	5.8	21
68	Identification of a Synthetic Lethal Relationship between Nucleotide Excision Repair Deficiency and Irofulven Sensitivity in Urothelial Cancer. Clinical Cancer Research, 2021, 27, 2011-2022.	3.2	19
69	Molecular correlates of response to eribulin and pembrolizumab in hormone receptor-positive metastatic breast cancer. Nature Communications, 2021, 12, 5563.	5.8	19
70	Integrating molecular profiles into clinical frameworks through the Molecular Oncology Almanac to prospectively guide precision oncology. Nature Cancer, 2021, 2, 1102-1112.	5.7	19
71	Side chain determinants of biopolymer function during selection and replication. Nature Chemical Biology, 2019, 15, 419-426.	3.9	17
72	Genomic Resistance Patterns to Second-Generation Androgen Blockade in Paired Tumor Biopsies of Metastatic Castration-Resistant Prostate Cancer. JCO Precision Oncology, 2017, 1, 1-11.	1.5	13

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73	Disulfide-compatible phage-assisted continuous evolution in the periplasmic space. Nature Communications, 2021, 12, 5959.	5.8	13
74	Toward Molecularly Driven Precision Medicine in Lung Adenocarcinoma. Cancer Discovery, 2017, 7, 555-557.	7.7	11
75	Bone marrow biopsy in lowâ€risk monoclonal gammopathy of undetermined significance reveals a novel smoldering multiple myeloma risk group. American Journal of Hematology, 2019, 94, E146-E149.	2.0	11
76	Decreased PGC-1Î± Post-Cardiopulmonary Bypass Leads to Impaired Oxidative Stress in Diabetic Patients. Annals of Thoracic Surgery, 2019, 107, 467-476.	0.7	8
77	Reconstruction of evolving gene variants and fitness from short sequencing reads. Nature Chemical Biology, 2021, 17, 1188-1198.	3.9	8
78	Severe Radiation Necrosis Refractory to Surgical Resection in Patients with Melanoma and Brain Metastases Managed with Ipilimumab/Nivolumab and Brain-Directed Stereotactic Radiation Therapy. World Neurosurgery, 2020, 139, 226-231.	0.7	5
79	Early Cellular Changes in the Ascending Aorta and Myocardium in a Swine Model of Metabolic Syndrome. PLoS ONE, 2016, 11, e0146481.	1.1	4
80	Future Directions in the Evaluation and Treatment of Precursor Plasma Cell Disorders. American Society of Clinical Oncology Educational Book / ASCO American Society of Clinical Oncology Meeting, 2016, 35, e400-e406.	1.8	2
81	Progression Risk-Based Classification of Asymptomatic WaldenstrÃ¶m Macroglobulinemia. Blood, 2018, 132, 150-150.	0.6	1
82	Whole Exome Sequencing and Targeted Sequencing Reveal the Heterogeneity of Genomic Evolution and Mutational Profile in Smoldering Multiple Myeloma. Blood, 2016, 128, 237-237.	0.6	0