J Keith Joung

List of Publications by Citations

94 papers	24,033 citations	50 h-index	102 g-index
102 ext. papers	29,124 ext. citations	24.7 avg, IF	7.43 L-index

#	Paper	IF	Citations
94	CRISPR-Cas systems for editing, regulating and targeting genomes. *Nature Biotechnology*, **2014**, 32, 347-55	44.5	2182
93	High-frequency off-target mutagenesis induced by CRISPR-Cas nucleases in human cells. *Nature Biotechnology*, **2013**, 31, 822-6	44.5	2178
92	Efficient genome editing in zebrafish using a CRISPR-Cas system. *Nature Biotechnology*, **2013**, 31, 227-9	44.5	2094
91	High-fidelity CRISPR-Cas9 nucleases with no detectable genome-wide off-target effects. *Nature*, **2016**, 529, 490-5	50.4	1600
90	Improving CRISPR-Cas nuclease specificity using truncated guide RNAs. *Nature Biotechnology*, **2014**, 32, 279-284	44.5	1371
89	GUIDE-seq enables genome-wide profiling of off-target cleavage by CRISPR-Cas nucleases. *Nature Biotechnology*, **2015**, 33, 187-197	44.5	1275
88	TALENs: a widely applicable technology for targeted genome editing. *Nature Reviews Molecular Cell Biology*, **2013**, 14, 49-55	48.7	1072
87	Engineered CRISPR-Cas9 nucleases with altered PAM specificities. *Nature*, **2015**, 523, 481-5	50.4	1061
86	Cationic lipid-mediated delivery of proteins enables efficient protein-based genome editing in vitro and in vivo. *Nature Biotechnology*, **2015**, 33, 73-80	44.5	904
85	FLASH assembly of TALENs for high-throughput genome editing. *Nature Biotechnology*, **2012**, 30, 460-5	44.5	830
84	CRISPR RNA-guided activation of endogenous human genes. *Nature Methods*, **2013**, 10, 977-9	21.6	789
83	Dimeric CRISPR RNA-guided FokI nucleases for highly specific genome editing. *Nature Biotechnology*, **2014**, 32, 569-76	44.5	738
82	Enhanced proofreading governs CRISPR-Cas9 targeting accuracy. *Nature*, **2017**, 550, 407-410	50.4	619
81	Gene therapy comes of age. *Science*, **2018**, 359,	33.3	598
80	Genome-wide specificities of CRISPR-Cas Cpf1 nucleases in human cells. *Nature Biotechnology*, **2016**, 34, 869-74	44.5	415
79	CIRCLE-seq: a highly sensitive in vitro screen for genome-wide CRISPR-Cas9 nuclease off-targets. *Nature Methods*, **2017**, 14, 607-614	21.6	397
78	Broadening the targeting range of Staphylococcus aureus CRISPR-Cas9 by modifying PAM recognition. *Nature Biotechnology*, **2015**, 33, 1293-1298	44.5	381

77	CRISPResso2 provides accurate and rapid genome editing sequence analysis. *Nature Biotechnology*, **2019**, 37, 224-226	44.5	326
76	Defining and improving the genome-wide specificities of CRISPR-Cas9 nucleases. *Nature Reviews Genetics*, **2016**, 17, 300-12	30.1	305
75	Pathways disrupted in human ALS motor neurons identified through genetic correction of mutant SOD1. *Cell Stem Cell*, **2014**, 14, 781-95	18	300
74	Targeted disruption of DNMT1, DNMT3A and DNMT3B in human embryonic stem cells. *Nature Genetics*, **2015**, 47, 469-78	36.3	288
73	Transcriptome-wide off-target RNA editing induced by CRISPR-guided DNA base editors. *Nature*, **2019**, 569, 433-437	50.4	270
72	Interactome maps of mouse gene regulatory domains reveal basic principles of transcriptional regulation. *Cell*, **2013**, 155, 1507-20	56.2	255
71	Activation of prokaryotic transcription through arbitrary protein-protein contacts. *Nature*, **1997**, 386, 627-30	50.4	253
70	Engineered CRISPR-Cas12a variants with increased activities and improved targeting ranges for gene, epigenetic and base editing. *Nature Biotechnology*, **2019**, 37, 276-282	44.5	235
69	An APOBEC3A-Cas9 base editor with minimized bystander and off-target activities. *Nature Biotechnology*, **2018**, 36, 977-982	44.5	224
68	In vivo CRISPR editing with no detectable genome-wide off-target mutations. *Nature*, **2018**, 561, 416-419	50.4	202
67	Broad specificity profiling of TALENs results in engineered nucleases with improved DNA-cleavage specificity. *Nature Methods*, **2014**, 11, 429-35	21.6	157
66	CRISPR DNA base editors with reduced RNA off-target and self-editing activities. *Nature Biotechnology*, **2019**, 37, 1041-1048	44.5	146
65	Inducible and multiplex gene regulation using CRISPR-Cpf1-based transcription factors. *Nature Methods*, **2017**, 14, 1163-1166	21.6	132
64	Discovery of widespread type I and type V CRISPR-Cas inhibitors. *Science*, **2018**, 362, 240-242	33.3	129
63	Prediction of off-target activities for the end-to-end design of CRISPR guide RNAs. *Nature Biomedical Engineering*, **2018**, 2, 38-47	19	127
62	Activities and specificities of CRISPR/Cas9 and Cas12a nucleases for targeted mutagenesis in maize. *Plant Biotechnology Journal*, **2019**, 17, 362-372	11.6	125
61	High levels of AAV vector integration into CRISPR-induced DNA breaks. *Nature Communications*, **2019**, 10, 4439	17.4	119
60	CRISPR C-to-G base editors for inducing targeted DNA transversions in human cells. *Nature Biotechnology*, **2021**, 39, 41-46	44.5	116

59	Dimeric CRISPR RNA-Guided FokI-dCas9 Nucleases Directed by Truncated gRNAs for Highly Specific Genome Editing. *Human Gene Therapy*, **2015**, 26, 425-31	4.8	106
58	Isocitrate Dehydrogenase Mutations Confer Dasatinib Hypersensitivity and SRC Dependence in Intrahepatic Cholangiocarcinoma. *Cancer Discovery*, **2016**, 6, 727-39	24.4	94
57	Therapeutic base editing of human hematopoietic stem cells. *Nature Medicine*, **2020**, 26, 535-541	50.5	84
56	Allele-specific gene editing prevents deafness in a model of dominant progressive hearing loss. *Nature Medicine*, **2019**, 25, 1123-1130	50.5	84
55	Chromatin regulation at the frontier of synthetic biology. *Nature Reviews Genetics*, **2015**, 16, 159-71	30.1	76
54	Continuous directed evolution of DNA-binding proteins to improve TALEN specificity. *Nature Methods*, **2015**, 12, 939-42	21.6	74
53	A dual-deaminase CRISPR base editor enables concurrent adenine and cytosine editing. *Nature Biotechnology*, **2020**, 38, 861-864	44.5	72
52	CRISPR/Cas9 Mediated Disruption of the Swedish APP Allele as a Therapeutic Approach for Early-Onset Alzheimer's Disease. *Molecular Therapy - Nucleic Acids*, **2018**, 11, 429-440	10.7	71
51	Reply to "Genome editing with modularly assembled zinc-finger nucleases". *Nature Methods*, **2010**, 7, 91-92	21.6	70
50	Systematic screening reveals a role for BRCA1 in the response to transcription-associated DNA damage. *Genes and Development*, **2014**, 28, 1957-75	12.6	66
49	CAUSEL: an epigenome- and genome-editing pipeline for establishing function of noncoding GWAS variants. *Nature Medicine*, **2015**, 21, 1357-63	50.5	65
48	Engineering designer transcription activator-like effector nucleases (TALENs) by REAL or REAL-Fast assembly. *Current Protocols in Molecular Biology*, **2012**, Chapter 12, Unit 12.15	2.9	65
47	Allele-Specific CRISPR-Cas9 Genome Editing of the Single-Base P23H Mutation for Rhodopsin-Associated Dominant Retinitis Pigmentosa. *CRISPR Journal*, **2018**, 1, 55-64	2.5	60
46	Hypoxia drives transient site-specific copy gain and drug-resistant gene expression. *Genes and Development*, **2015**, 29, 1018-31	12.6	55
45	Efficient CRISPR/Cas9-mediated editing of trinucleotide repeat expansion in myotonic dystrophy patient-derived iPS and myogenic cells. *Nucleic Acids Research*, **2018**, 46, 8275-8298	20.1	49
44	Defining CRISPR-Cas9 genome-wide nuclease activities with CIRCLE-seq. *Nature Protocols*, **2018**, 13, 2615-2642	13.8	46
43	A zebrafish model of myelodysplastic syndrome produced through tet2 genomic editing. *Molecular and Cellular Biology*, **2015**, 35, 789-804	4.8	45
42	Targeted mutagenesis of zebrafish antithrombin III triggers disseminated intravascular coagulation and thrombosis, revealing insight into function. *Blood*, **2014**, 124, 142-50	2.2	39

41	Open-source guideseq software for analysis of GUIDE-seq data. *Nature Biotechnology*, **2016**, 34, 483	44.5	34
40	Optimization of AsCas12a for combinatorial genetic screens in human cells. *Nature Biotechnology*, **2021**, 39, 94-104	44.5	34
39	Targeted genome editing in human cells using CRISPR/Cas nucleases and truncated guide RNAs. *Methods in Enzymology*, **2014**, 546, 21-45	1.7	33
38	PrimeDesign software for rapid and simplified design of prime editing guide RNAs. *Nature Communications*, **2021**, 12, 1034	17.4	32
37	Nodal patterning without Lefty inhibitory feedback is functional but fragile. *ELife*, **2017**, 6,	8.9	31
36	CRISPR prime editing with ribonucleoprotein complexes in zebrafish and primary human cells. *Nature Biotechnology*, **2021**,	44.5	30
35	Response to "Unexpected mutations after CRISPR-Cas9 editing in vivo". *Nature Methods*, **2018**, 15, 238-239	28.6	25
34	Context influences on TALE-DNA binding revealed by quantitative profiling. *Nature Communications*, **2015**, 6, 7440	17.4	22
33	What's changed with genome editing?. *Cell Stem Cell*, **2014**, 15, 3-4	18	21
32	Engineering customized TALE nucleases (TALENs) and TALE transcription factors by fast ligation-based automatable solid-phase high-throughput (FLASH) assembly. *Current Protocols in Molecular Biology*, **2013**, Chapter 12, Unit 12.16	2.9	20
31	CRISPR-SURF: discovering regulatory elements by deconvolution of CRISPR tiling screen data. *Nature Methods*, **2018**, 15, 992-993	21.6	17
30	Impact of Genetic Variation on CRISPR-Cas Targeting. *CRISPR Journal*, **2018**, 1, 159-170	2.5	16
29	IB kinase (IKBKB) mutations in lymphomas that constitutively activate canonical nuclear factor B (NFB) signaling. *Journal of Biological Chemistry*, **2014**, 289, 26960-26972	5.4	16
28	Unwanted mutations: Standards needed for gene-editing errors. *Nature*, **2015**, 523, 158	50.4	15
27	Engineering designer nucleases with customized cleavage specificities. *Current Protocols in Molecular Biology*, **2011**, Chapter 12, Unit12.13	2.9	15
26	Camptothecin resistance is determined by the regulation of topoisomerase I degradation mediated by ubiquitin proteasome pathway. *Oncotarget*, **2017**, 8, 43733-43751	3.3	15
25	A Code of Ethics for Gene Drive Research. *CRISPR Journal*, **2021**, 4, 19-24	2.5	14
24	Temporal and Spatial Post-Transcriptional Regulation of Zebrafish mRNA by Long Noncoding RNA During Brain Vascular Assembly. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2018**, 38, 1562-1575	9.4	12

23	Rescue of DNA-PK Signaling and T-Cell Differentiation by Targeted Genome Editing in a prkdc Deficient iPSC Disease Model. *PLoS Genetics*, **2015**, 11, e1005239	6	11
22	Optimization of AsCas12a for combinatorial genetic screens in human cells		11
21	Genome Editing in Human Cells Using CRISPR/Cas Nucleases. *Current Protocols in Molecular Biology*, **2015**, 112, 31.3.1-31.3.18	2.9	10
20	Identifying and modifying protein-DNA and protein-protein interactions using a bacterial two-hybrid selection system. *Journal of Cellular Biochemistry*, **2001**, Suppl 37, 53-7	4.7	10
19	Analysis of off-target effects in CRISPR-based gene drives in the human malaria mosquito. *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	10
18	Genome editing: a tool for research and therapy: towards a functional understanding of variants for molecular diagnostics using genome editing. *Nature Medicine*, **2014**, 20, 1103-4	50.5	9
17	PrimeDesign software for rapid and simplified design of prime editing guide RNAs		8
16	Technologies and Computational Analysis Strategies for CRISPR Applications. *Molecular Cell*, **2020**, 79, 11-29	17.6	7
15	CRISPR adenine and cytosine base editors with reduced RNA off-target activities		6
14	Analysis and comparison of genome editing using CRISPResso2		4
13	Cell-based artificial APC resistant to lentiviral transduction for efficient generation of CAR-T cells from various cell sources **2020**, 8,		4
12	Scalable characterization of the PAM requirements of CRISPR-Cas enzymes using HT-PAMDA. *Nature Protocols*, **2021**, 16, 1511-1547	18.8	4
11	Mutant Allele-Specific CRISPR Disruption in DYT1 Dystonia Fibroblasts Restores Cell Function. *Molecular Therapy - Nucleic Acids*, **2020**, 21, 1-12	10.7	3
10	Zebrafish Deficiency Impairs Retinal Patterning and Oculomotor Function. *Journal of Neuroscience*, **2020**, 40, 143-158	6.6	3
9	Disruption of the kringle 1 domain of prothrombin leads to late onset mortality in zebrafish. *Scientific Reports*, **2020**, 10, 4049	4.9	2
8	Global-scale CRISPR gene editor specificity profiling by ONE-seq identifies population-specific, variant off-target effects		2
7	Genome-wide functional perturbation of human microsatellite repeats using engineered zinc finger transcription factors. *Cell Genomics*, **2022**, 2, 100119		2
6	Factor X Mutant Zebrafish Tolerate a Severe Hemostatic Defect in Early Development Yet Develop Lethal Hemorrhage in Adulthood. *Blood*, **2015**, 126, 426-426	2.2	1

5	Augmenting and directing long-range CRISPR-mediated activation in human cells. *Nature Methods*, **2021**, 18, 1075-1081	21.6	1
4	CRISPR-Cas9 treatment partially restores amyloid-β42/40 in human fibroblasts with the Alzheimer's disease M146L mutation.. *Molecular Therapy - Nucleic Acids*, **2022**, 28, 450-461	10.7	1
3	Defining genome-wide CRISPR-Cas genome-editing nuclease activity with GUIDE-seq. *Nature Protocols*, **2021**, 16, 5592-5615	18.8	0
2	Combined +58 and +55 BCL11A enhancer Editing Yields Exceptional Efficiency, Specificity and HbF Induction in Human and NHP Preclinical Models. *Blood*, **2021**, 138, 1852-1852	2.2	
1	A Zebrafish Model Of Antithrombin III Deficiency Displays Bleeding and Thrombosis Secondary To Disseminated Intravascular Coagulation. *Blood*, **2013**, 122, 200-200	2.2	