Erik J Sontheimer

List of Publications by Citations

84 papers	11,798 citations	38 h-index	103 g-index
103 ext. papers	13,538 ext. citations	21.1 avg, IF	6.85 L-index

#	Paper	IF	Citations
84	Origins and Mechanisms of miRNAs and siRNAs. *Cell*, **2009**, 136, 642-55	56.2	3659
83	CRISPR interference limits horizontal gene transfer in staphylococci by targeting DNA. *Science*, **2008**, 322, 1843-5	33.3	1181
82	Distinct roles for Drosophila Dicer-1 and Dicer-2 in the siRNA/miRNA silencing pathways. *Cell*, **2004**, 117, 69-81	56.2	1016
81	CRISPR interference: RNA-directed adaptive immunity in bacteria and archaea. *Nature Reviews Genetics*, **2010**, 11, 181-90	30.1	711
80	Efficient genome engineering in human pluripotent stem cells using Cas9 from Neisseria meningitidis. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 15644-9	11.5	508
79	Self versus non-self discrimination during CRISPR RNA-directed immunity. *Nature*, **2010**, 463, 568-71	50.4	444
78	A Dicer-2-dependent 80s complex cleaves targeted mRNAs during RNAi in Drosophila. *Cell*, **2004**, 117, 83-94	56.2	348
77	Assembly and function of RNA silencing complexes. *Nature Reviews Molecular Cell Biology*, **2005**, 6, 127-38	48.7	330
76	Silencing by small RNAs is linked to endosomal trafficking. *Nature Cell Biology*, **2009**, 11, 1150-6	23.4	279
75	Naturally Occurring Off-Switches for CRISPR-Cas9. *Cell*, **2016**, 167, 1829-1838.e9	56.2	260
74	Silence from within: endogenous siRNAs and miRNAs. *Cell*, **2005**, 122, 9-12	56.2	236
73	Adenovirus-Mediated Somatic Genome Editing of Pten by CRISPR/Cas9 in Mouse Liver in Spite of Cas9-Specific Immune Responses. *Human Gene Therapy*, **2015**, 26, 432-42	4.8	226
72	Processing-independent CRISPR RNAs limit natural transformation in Neisseria meningitidis. *Molecular Cell*, **2013**, 50, 488-503	17.6	206
71	Metal ion catalysis during splicing of premessenger RNA. *Nature*, **1997**, 388, 801-5	50.4	155
70	A Broad-Spectrum Inhibitor of CRISPR-Cas9. *Cell*, **2017**, 170, 1224-1233.e15	56.2	145
69	Autoantibodies against a serine tRNA-protein complex implicated in cotranslational selenocysteine insertion. *Proceedings of the National Academy of Sciences of the United States of America*, **1992**, 89, 9739-43	11.5	126
68	An inside job for siRNAs. *Molecular Cell*, **2008**, 31, 309-12	17.6	108

67	CRISPR/Cas9-mediated genome editing induces exon skipping by alternative splicing or exon deletion. *Genome Biology*, **2017**, 18, 108	18.3	103
66	Metal ion catalysis during the exon-ligation step of nuclear pre-mRNA splicing: extending the parallels between the spliceosome and group II introns. *Rna*, **2000**, 6, 199-205	5.8	98
65	A role for ubiquitin in the spliceosome assembly pathway. *Nature Structural and Molecular Biology*, **2008**, 15, 444-51	17.6	93
64	RNAi: RISC gets loaded. *Cell*, **2005**, 123, 543-5	56.2	87
63	A Compact, High-Accuracy Cas9 with a Dinucleotide PAM for In□Vivo Genome Editing. *Molecular Cell* , **2019**, 73, 714-726.e4	17.6	85
62	Kinetic characterization of the second step of group II intron splicing: role of metal ions and the cleavage site 2ŦOH in catalysis. *Biochemistry*, **2000**, 39, 12939-52	3.2	72
61	C-BERST: defining subnuclear proteomic landscapes at genomic elements with dCas9-APEX2. *Nature Methods*, **2018**, 15, 433-436	21.6	67
60	Site-specific RNA crosslinking with 4-thiouridine. *Molecular Biology Reports*, **1994**, 20, 35-44	2.8	64
59	Ubiquitin binding by a variant Jab1/MPN domain in the essential pre-mRNA splicing factor Prp8p. *Rna*, **2006**, 12, 292-302	5.8	63
58	NmeCas9 is an intrinsically high-fidelity genome-editing platform. *Genome Biology*, **2018**, 19, 214	18.3	60
57	Molecular requirements for RNA-induced silencing complex assembly in the Drosophila RNA interference pathway. *Journal of Biological Chemistry*, **2005**, 280, 39278-83	5.4	58
56	All-in-one adeno-associated virus delivery and genome editing by Neisseria meningitidis Cas9 in vivo. *Genome Biology*, **2018**, 19, 137	18.3	58
55	Type II-C CRISPR-Cas9 Biology, Mechanism, and Application. *ACS Chemical Biology*, **2018**, 13, 357-365	4.9	57
54	The Bacterial Origins of the CRISPR Genome-Editing Revolution. *Human Gene Therapy*, **2015**, 26, 413-24	4.8	56
53	Short interfering RNA strand selection is independent of dsRNA processing polarity during RNAi in Drosophila. *Current Biology*, **2006**, 16, 530-5	6.3	53
52	An engineered ScCas9 with broad PAM range and high specificity and activity. *Nature Biotechnology* , **2020**, 38, 1154-1158	44.5	51
51	Potent Cas9 Inhibition in Bacterial and Human Cells by AcrIIC4 and AcrIIC5 Anti-CRISPR Proteins. *MBio*, **2018**, 9,	7.8	51
50	Molecular biology. Argonaute journeys into the heart of RISC. *Science*, **2004**, 305, 1409-10	33.3	46

49	DNase H Activity of Neisseria meningitidis Cas9. *Molecular Cell*, **2015**, 60, 242-55	17.6	45
48	Improved prime editors enable pathogenic allele correction and cancer modelling in adult mice. *Nature Communications*, **2021**, 12, 2121	17.4	45
47	Heavily and fully modified RNAs guide efficient SpyCas9-mediated genome editing. *Nature Communications*, **2018**, 9, 2641	17.4	44
46	A Cas9 with PAM recognition for adenine dinucleotides. *Nature Communications*, **2020**, 11, 2474	17.4	38
45	Anti-CRISPRs: Protein Inhibitors of CRISPR-Cas Systems. *Annual Review of Biochemistry*, **2020**, 89, 309-332	29.1	37
44	Tissue-restricted genome editing in vivo specified by microRNA-repressible anti-CRISPR proteins. *Rna*, **2019**, 25, 1421-1431	5.8	35
43	Structures of Neisseria meningitidis Cas9 Complexes in Catalytically Poised and Anti-CRISPR-Inhibited States. *Molecular Cell*, **2019**, 76, 938-952.e5	17.6	35
42	Inhibition of CRISPR-Cas9 ribonucleoprotein complex assembly by anti-CRISPR AcrIIC2. *Nature Communications*, **2019**, 10, 2806	17.4	30
41	Blanks, a nuclear siRNA/dsRNA-binding complex component, is required for Drosophila spermiogenesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 3204-9	11.5	24
40	Inhibition of CRISPR-Cas systems by mobile genetic elements. *Current Opinion in Microbiology*, **2017**, 37, 120-127	7.9	23
39	The NIH Somatic Cell Genome Editing program. *Nature*, **2021**, 592, 195-204	50.4	21
38	Anti-CRISPR AcrIIA5 Potently Inhibits All Cas9 Homologs Used for Genome Editing. *Cell Reports*, **2019**, 29, 1739-1746.e5	10.6	20
37	Invasive DNA, chopped and in the CRISPR. *Structure*, **2009**, 17, 786-8	5.2	20
36	Orthogonal Cas9-Cas9 chimeras provide a versatile platform for genome editing. *Nature Communications*, **2018**, 9, 4856	17.4	19
35	ATP modulates siRNA interactions with an endogenous human Dicer complex. *Rna*, **2005**, 11, 1719-24	5.8	18
34	A Hyperthermophilic Phage Decoration Protein Suggests Common Evolutionary Origin with Herpesvirus Triplex Proteins and an Anti-CRISPR Protein. *Structure*, **2018**, 26, 936-947.e3	5.2	16
33	Meiosis-induced alterations in transcript architecture and noncoding RNA expression in S. cerevisiae. *Rna*, **2012**, 18, 1142-53	5.8	15
32	Thermodynamic and structural characterization of 2′-nitrogen-modified RNA duplexes. *Nucleic Acids Research*, **2004**, 32, 3446-55	20.1	14

31	Primary processing of CRISPR RNA by the endonuclease Cas6 in Staphylococcus epidermidis. *FEBS Letters*, **2015**, 589, 3197-204	3.8	10
30	"siRNAs and miRNAs": a meeting report on RNA silencing. *Rna*, **2004**, 10, 1165-73	5.8	10
29	5? Modifications Improve Potency and Efficacy of DNA Donors for Precision Genome Editing		8
28	Efficient Homology-directed Repair with Circular ssDNA Donors		7
27	Proteomics identification of Drosophila small interfering RNA-associated factors. *Molecular and Cellular Proteomics*, **2010**, 9, 1866-72	7.6	6
26	R2D2 leads the silencing trigger to mRNA's death star. *Cell*, **2003**, 115, 132-3	56.2	6
25	YAP1 Withdrawal in Hepatoblastoma Drives Therapeutic Differentiation of Tumor Cells to Functional Hepatocyte-Like Cells. *Hepatology*, **2021**, 73, 1011-1027	11.2	6
24	SPO24 is a transcriptionally dynamic, small ORF-encoding locus required for efficient sporulation in Saccharomyces cerevisiae. *PLoS ONE*, **2014**, 9, e105058	3.7	5
23	Bridging sulfur substitutions in the analysis of pre-mRNA splicing. *Methods*, **1999**, 18, 29-37	4.6	5
22	Self-inactivating, all-in-one AAV vectors for precision Cas9 genome editing via homology-directed repair in vivo. *Nature Communications*, **2021**, 12, 6267	17.4	5
21	CRISPR-enhanced human adipocyte browning as cell therapy for metabolic disease. *Nature Communications*, **2021**, 12, 6931	17.4	4
20	5'Modifications improve potency and efficacy of DNA donors for precision genome editing. *ELife*, **2021**, 10,	8.9	4
19	NmeCas9 is an intrinsically high-fidelity genome editing platform		4
18	Structural biology. Cascading into focus. *Science*, **2014**, 345, 1452-3	33.3	3
17	Cas9 gets a classmate. *Nature Biotechnology*, **2015**, 33, 1240-1241	44.5	3
16	Separation of Drosophila RNA silencing complexes by native gel electrophoresis. *Methods in Molecular Biology*, **2005**, 309, 11-6	1.4	2
15	Adapting dCas9-APEX2 for subnuclear proteomic profiling. *Methods in Enzymology*, **2019**, 616, 365-383	1.7	1
14	X-Tracting a New CRISPR-Cas Genome-Editing Platform from Metagenomic Data Sets. *CRISPR Journal*, **2019**, 2, 148-150	2.5	1

13	Small RNAs of opposite signbut same absolute value. *Cell*, **2012**, 151, 1157-8	56.2	1
12	Genome-wide detection of CRISPR editing in vivo using GUIDE-tag.. *Nature Communications*, **2022**, 13, 437	17.4	1
11	Heavily and Fully Modified RNAs Guide Efficient SpyCas9-Mediated Genome Editing		1
10	One Anti-CRISPR to Rule Them All: Potent Inhibition of Cas9 Homologs Used for Genome Editing. *SSRN Electronic Journal*,	1	1
9	Orthogonal CRISPR-Cas genome editing and efficient inhibition with anti-CRISPRs in zebrafish embryos		1
8	Potent Cas9 inhibition in bacterial and human cells by new anti-CRISPR protein families		1
7	Tissue-specific Genome Editing in vivo by MicroRNA-repressible Anti-CRISPR Proteins		1
6	Shutting down RNA-targeting CRISPR. *Science*, **2020**, 369, 31-32	33.3	0
5	Quit stalling or you'll be silenced. *Cell*, **2013**, 152, 938-9	56.2	0
4	CRISPR Shields: Fending Off Diverse Cas Nucleases with Nucleus-like Structures. *Molecular Cell*, **2020**, 77, 934-936	17.6	
3	CRISPRs from scratch. *Nature Microbiology*, **2018**, 3, 261-262	26.6	
2	RNA. CRISPR goes retro. *Science*, **2016**, 351, 920-1	33.3	
1	Accelerating expansion. *Rna*, **2015**, 21, 510	5.8	