Ciaran M Lee

List of Publications by Year
in descending order

56 papers	4,436 citations	159585 30 h-index	161849 54 g-index
63 all docs	63 docs citations	63 times ranked	6028 citing authors

#	Article	IF	Citations
1	A high-fidelity Cas9 mutant delivered as a ribonucleoprotein complex enables efficient gene editing in human hematopoietic stem and progenitor cells. Nature Medicine, 2018, 24, 1216-1224.	30.7	573
2	CRISPR/Cas9-Based Genome Editing for Disease Modeling and Therapy: Challenges and Opportunities for Nonviral Delivery. Chemical Reviews, 2017, 117, 9874-9906.	47.7	418
3	CD7-edited T cells expressing a CD7-specific CAR for the therapy of T-cell malignancies. Blood, 2017, 130, 285-296.	1.4	326
4	COSMID: A Web-based Tool for Identifying and Validating CRISPR/Cas Off-target Sites. Molecular Therapy - Nucleic Acids, 2014, 3, e214.	5.1	315
5	Streptococcus thermophilus CRISPR-Cas9 Systems Enable Specific Editing of the Human Genome. Molecular Therapy, 2016, 24, 636-644.	8.2	204
6	The Neisseria meningitidis CRISPR-Cas9 System Enables Specific Genome Editing in Mammalian Cells. Molecular Therapy, 2016, 24, 645-654.	8.2	190
7	Gene correction for SCID-X1 in long-term hematopoietic stem cells. Nature Communications, 2019, 10, 1634.	12.8	140
8	AAV-CRISPR Gene Editing Is Negated by Pre-existing Immunity to Cas9. Molecular Therapy, 2020, 28, 1432-1441.	8.2	140
9	Engineered materials for in vivo delivery of genome-editing machinery. Nature Reviews Materials, 2019, 4, 726-737.	48.7	139
10	Highly efficient editing of theÂÎ²-globin gene in patient-derived hematopoietic stem and progenitor cells to treat sickle cell disease. Nucleic Acids Research, 2019, 47, 7955-7972.	14.5	110
11	Efficient CRISPR/Cas9-Mediated Genome Editing Using a Chimeric Single-Guide RNA Molecule. Frontiers in Plant Science, 2017, 8, 1441.	3.6	107
12	Spatial control of in vivo CRISPRâ€“Cas9 genome editing via nanomagnets. Nature Biomedical Engineering, 2019, 3, 126-136.	22.5	107
13	Nuclease Target Site Selection for Maximizing On-target Activity and Minimizing Off-target Effects in Genome Editing. Molecular Therapy, 2016, 24, 475-487.	8.2	100
14	Optimization of CRISPR/Cas9 Delivery to Human Hematopoietic Stem and Progenitor Cells for Therapeutic Genomic Rearrangements. Molecular Therapy, 2019, 27, 137-150.	8.2	97
15	High-Efficiency, Selection-free Gene Repair in Airway Stem Cells from Cystic Fibrosis Patients Rescues CFTR Function in Differentiated Epithelia. Cell Stem Cell, 2020, 26, 161-171.e4.	11.1	97
16	A Self-Deleting AAV-CRISPR System for InÂVivo Genome Editing. Molecular Therapy - Methods and Clinical Development, 2019, 12, 111-122.	4.1	93
17	Therapeutically relevant engraftment of a CRISPR-Cas9â€“edited HSC-enriched population with HbF reactivation in nonhuman primates. Science Translational Medicine, 2019, 11, .	12.4	88
18	Human genome-edited hematopoietic stem cells phenotypically correct Mucopolysaccharidosis type I. Nature Communications, 2019, 10, 4045.	12.8	88

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19	A Burden of Rare Variants Associated with Extremes of Gene Expression in Human Peripheral Blood. American Journal of Human Genetics, 2016, 98, 299-309.	6.2	84
20	CRISPR-based gene editing enables FOXP3 gene repair in IPEX patient cells. Science Advances, 2020, 6, eaaz0571.	10.3	84
21	Development of Î²-globin gene correction in human hematopoietic stem cells as a potential durable treatment for sickle cell disease. Science Translational Medicine, 2021, 13, .	12.4	82
22	Somatic genome editing with CRISPR/Cas9 generates and corrects a metabolic disease. Scientific Reports, 2017, 7, 44624.	3.3	76
23	Correction of the Î”F508 Mutation in the Cystic Fibrosis Transmembrane Conductance Regulator Gene by Zinc-Finger Nuclease Homology-Directed Repair. BioResearch Open Access, 2012, 1, 99-108.	2.6	74
24	In Vivo Ryr 2 Editing Corrects Catecholaminergic Polymorphic Ventricular Tachycardia. Circulation Research, 2018, 123, 953-963.	4.5	63
25	Somatic Editing of Ldlr With Adeno-Associated Viral-CRISPR Is an Efficient Tool for Atherosclerosis Research. Arteriosclerosis, Thrombosis, and Vascular Biology, 2018, 38, 1997-2006.	2.4	63
26	TNF-Î± synergises with IFN-Î³ to induce caspase-8-JAK1/2-STAT1-dependent death of intestinal epithelial cells. Cell Death and Disease, 2021, 12, 864.	6.3	54
27	Tools for experimental and computational analyses of off-target editing by programmable nucleases. Nature Protocols, 2021, 16, 10-26.	12.0	52
28	Genome editing of donor-derived T-cells to generate allogenic chimeric antigen receptor-modified T cells: Optimizing Î±Î² T cell-depleted haploidentical hematopoietic stem cell transplantation. Haematologica, 2021, 106, 847-858.	3.5	46
29	Efficient fdCas9 Synthetic Endonuclease with Improved Specificity for Precise Genome Engineering. PLoS ONE, 2015, 10, e0133373.	2.5	46
30	Genome editing for inborn errors of metabolism: advancing towards the clinic. BMC Medicine, 2017, 15, 43.	5.5	42
31	Metabolic engineering generates a transgene-free safety switch for cell therapy. Nature Biotechnology, 2020, 38, 1441-1450.	17.5	39
32	Collagen-rich airway smooth muscle cells are a metastatic niche for tumor colonization in the lung. Nature Communications, 2019, 10, 2131.	12.8	27
33	Analysis of gene repair tracts from Cas9/gRNA double-stranded breaks in the human CFTR gene. Scientific Reports, 2016, 6, 32230.	3.3	26
34	Targeted replacement of full-length CFTR in human airway stem cells by CRISPR-Cas9 for pan-mutation correction in the endogenous locus. Molecular Therapy, 2022, 30, 223-237.	8.2	24
35	The TRACE-Seq method tracks recombination alleles and identifies clonal reconstitution dynamics of gene targeted human hematopoietic stem cells. Nature Communications, 2021, 12, 472.	12.8	23
36	Controlled delivery of Î²-globin-targeting TALENs and CRISPR/Cas9 into mammalian cells for genome editing using microinjection. Scientific Reports, 2015, 5, 16031.	3.3	20

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37	Examination of CRISPR/Cas9 design tools and the effect of target site accessibility on Cas9 activity. Experimental Physiology, 2018, 103, 456-460.	2.0	20
38	High-Throughput Imaging of CRISPR- and Recombinant Adeno-Associated Virusâ€“Induced DNA Damage Response in Human Hematopoietic Stem and Progenitor Cells. CRISPR Journal, 2022, 5, 80-94.	2.9	16
39	Treating hemoglobinopathies using gene-correction approaches: promises and challenges. Human Genetics, 2016, 135, 993-1010.	3.8	13
40	Therapeutic Crispr/Cas9 Genome Editing for Treating Sickle Cell Disease. Blood, 2016, 128, 4703-4703.	1.4	13
41	Design and Validation of CRISPR/Cas9 Systems for Targeted Gene Modification in Induced Pluripotent Stem Cells. Methods in Molecular Biology, 2017, 1498, 3-21.	0.9	10
42	InÂvivo genome editing at the albumin locus to treat methylmalonic acidemia. Molecular Therapy - Methods and Clinical Development, 2021, 23, 619-632.	4.1	10
43	Fine-mapping within eQTL credible intervals by expression CROP-seq. Biology Methods and Protocols, 2020, 5, bpaa008.	2.2	8
44	Pitfalls in Single Clone CRISPR-Cas9 Mutagenesis to Fine-Map Regulatory Intervals. Genes, 2020, 11, 504.	2.4	6
45	Site-Specific Post-translational Surface Modification of Adeno-Associated Virus Vectors Using Leucine Zippers. ACS Synthetic Biology, 2020, 9, 461-467.	3.8	6
46	331. Development of Neisseria meningitidis CRISPR/Cas9 Systems for Efficient and Specific Genome Editing. Molecular Therapy, 2015, 23, S132-S133.	8.2	4
47	Gene Editing with Crispr-Cas9 for Treating Beta-Hemoglobinopathies. Blood, 2015, 126, 3376-3376.	1.4	4
48	Re-Creating Hereditary Persistence of Fetal Hemoglobin (HPFH) to Treat Sickle Cell Disease (SCD) and Î²-Thalassemia. Blood, 2016, 128, 4708-4708.	1.4	2
49	131. Chromatin-Dependent Loci Accessibility Affects CRISPR-Cas9 Targeting Efficiency. Molecular Therapy, 2016, 24, S54.	8.2	1
50	Engineered Human Umbilical Cord Derived Erythroid Progenitor Cells (HUDEP2) with Sickle or Î²-Thalassemia Mutation: An in-Vitro System for Testing Pharmacological Induction of Fetal Hemoglobin. Blood, 2018, 132, 3478-3478.	1.4	1
51	Highly Efficient Editing of the Beta-Globin Gene in Patient Derived Hematopoietic Stem and Progenitor Cells to Treat Sickle Cell Disease. Blood, 2018, 132, 2192-2192.	1.4	1
52	Identification and Validation of CRISPR/Cas9 Off-Target Activity in Hematopoietic Stem and Progenitor Cells. Methods in Molecular Biology, 2022, 2429, 281-306.	0.9	1
53	Abstract 032: Somatic Editing of Ldlr with AAV-CRISPR for Atherosclerosis Studies. Arteriosclerosis, Thrombosis, and Vascular Biology, 2018, 38, .	2.4	0
54	Sickle Human Umbilical Cord Derived Erythroid Progenitor Cells (S-HUDEP2): An Ideal in-Vitro System for Screening Anti-Sickling Compounds for Sickle Cell Disease. Blood, 2018, 132, 3675-3675.	1.4	0

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55	Persistence of CRISPR/Cas9-Edited Hematopoietic Stem and Progenitor Cells and Reactivation of Fetal Hemoglobin in Nonhuman Primates. Blood, 2018, 132, 806-806.	1.4	0
56	Modulation of inhibitory signals in CAR T cells leads to improved activity against glioblastoma.. Journal of Clinical Oncology, 2020, 38, 3031-3031.	1.6	0