Ciaran M Lee

List of Publications by Citations

57 papers	2,694 citations	26 h-index	51 g-index
63 ext. papers	3,628 ext. citations	12 avg, IF	5.33 L-index

#	Paper	IF	Citations
57	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	50.5	344
56	CRISPR/Cas9-Based Genome Editing for Disease Modeling and Therapy: Challenges and Opportunities for Nonviral Delivery. *Chemical Reviews*, **2017**, 117, 9874-9906	68.1	287
55	COSMID: A Web-based Tool for Identifying and Validating CRISPR/Cas Off-target Sites. *Molecular Therapy - Nucleic Acids*, **2014**, 3, e214	10.7	219
54	CD7-edited T cells expressing a CD7-specific CAR for the therapy of T-cell malignancies. *Blood*, **2017** , 130, 285-296	2.2	183
53	The Neisseria meningitidis CRISPR-Cas9 System Enables Specific Genome Editing in Mammalian Cells. *Molecular Therapy*, **2016**, 24, 645-54	11.7	150
52	Streptococcus thermophilus CRISPR-Cas9 Systems Enable Specific Editing of the Human Genome. *Molecular Therapy*, **2016**, 24, 636-44	11.7	148
51	Nuclease Target Site Selection for Maximizing On-target Activity and Minimizing Off-target Effects in Genome Editing. *Molecular Therapy*, **2016**, 24, 475-87	11.7	87
50	Gene correction for SCID-X1 in long-term hematopoietic stem cells. *Nature Communications*, **2019**, 10, 1634	17.4	77
49	Engineered materials for in vivo delivery of genome-editing machinery. *Nature Reviews Materials*, **2019**, 4, 726-737	73.3	73
48	Efficient CRISPR/Cas9-Mediated Genome Editing Using a Chimeric Single-Guide RNA Molecule. *Frontiers in Plant Science*, **2017**, 8, 1441	6.2	72
47	AAV-CRISPR Gene Editing Is Negated by Pre-existing Immunity to Cas9. *Molecular Therapy*, **2020**, 28, 1432-1441	11.7	72
46	Highly efficient editing of the β-globin gene in patient-derived hematopoietic stem and progenitor cells to treat sickle cell disease. *Nucleic Acids Research*, **2019**, 47, 7955-7972	20.1	67
45	Spatial control of in vivo CRISPR-Cas9 genome editing via nanomagnets. *Nature Biomedical Engineering*, **2019**, 3, 126-136	19	65
44	Correction of the F508 Mutation in the Cystic Fibrosis Transmembrane Conductance Regulator Gene by Zinc-Finger Nuclease Homology-Directed Repair. *BioResearch Open Access*, **2012**, 1, 99-108	2.4	64
43	A Self-Deleting AAV-CRISPR System for Genome Editing. *Molecular Therapy - Methods and Clinical Development*, **2019**, 12, 111-122	6.4	62
42	A Burden of Rare Variants Associated with Extremes of Gene Expression in Human Peripheral Blood. *American Journal of Human Genetics*, **2016**, 98, 299-309	11	61
41	Therapeutically relevant engraftment of a CRISPR-Cas9-edited HSC-enriched population with HbF reactivation in nonhuman primates. *Science Translational Medicine*, **2019**, 11,	17.5	59

40	Optimization of CRISPR/Cas9 Delivery to Human Hematopoietic Stem and Progenitor Cells for Therapeutic Genomic Rearrangements. *Molecular Therapy*, **2019**, 27, 137-150	11.7	58
39	Somatic genome editing with CRISPR/Cas9 generates and corrects a metabolic disease. *Scientific Reports*, **2017**, 7, 44624	4.9	54
38	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	18	50
37	Human genome-edited hematopoietic stem cells phenotypically correct Mucopolysaccharidosis type I. *Nature Communications*, **2019**, 10, 4045	17.4	44
36	Efficient fdCas9 Synthetic Endonuclease with Improved Specificity for Precise Genome Engineering. *PLoS ONE*, **2015**, 10, e0133373	3.7	42
35	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	9.4	41
34	CRISPR-based gene editing enables gene repair in IPEX patient cells. *Science Advances*, **2020**, 6, eaaz0571	14.3	38
33	Genome editing for inborn errors of metabolism: advancing towards the clinic. *BMC Medicine*, **2017**, 15, 43	11.4	30
32	In Vivo Ryr2 Editing Corrects Catecholaminergic Polymorphic Ventricular Tachycardia. *Circulation Research*, **2018**, 123, 953-963	15.7	29
31	Analysis of gene repair tracts from Cas9/gRNA double-stranded breaks in the human CFTR gene. *Scientific Reports*, **2016**, 6, 32230	4.9	21
30	Collagen-rich airway smooth muscle cells are a metastatic niche for tumor colonization in the lung. *Nature Communications*, **2019**, 10, 2131	17.4	20
29	Genome editing of donor-derived T-cells to generate allogenic chimeric antigen receptor-modified T cells: Optimizing T cell-depleted haploidentical hematopoietic stem cell transplantation. *Haematologica*, **2021**, 106, 847-858	6.6	18
28	Examination of CRISPR/Cas9 design tools and the effect of target site accessibility on Cas9 activity. *Experimental Physiology*, **2018**, 103, 456-460	2.4	14
27	Controlled delivery of globin-targeting TALENs and CRISPR/Cas9 into mammalian cells for genome editing using microinjection. *Scientific Reports*, **2015**, 5, 16031	4.9	14
26	Treating hemoglobinopathies using gene-correction approaches: promises and challenges. *Human Genetics*, **2016**, 135, 993-1010	6.3	12
25	Metabolic engineering generates a transgene-free safety switch for cell therapy. *Nature Biotechnology*, **2020**, 38, 1441-1450	44.5	12
24	Development of globin gene correction in human hematopoietic stem cells as a potential durable treatment for sickle cell disease. *Science Translational Medicine*, **2021**, 13,	17.5	12
23	Tools for experimental and computational analyses of off-target editing by programmable nucleases. *Nature Protocols*, **2021**, 16, 10-26	18.8	12

22	Therapeutic Crispr/Cas9 Genome Editing for Treating Sickle Cell Disease. *Blood*, **2016**, 128, 4703-4703	2.2	7
21	Targeted replacement of full-length CFTR in human airway stem cells by CRISPR-Cas9 for pan-mutation correction in the endogenous locus. *Molecular Therapy*, **2021**,	11.7	7
20	The TRACE-Seq method tracks recombination alleles and identifies clonal reconstitution dynamics of gene targeted human hematopoietic stem cells. *Nature Communications*, **2021**, 12, 472	17.4	7
19	Fine-mapping within eQTL credible intervals by expression CROP-seq. *Biology Methods and Protocols*, **2020**, 5, bpaa008	2.4	6
18	TNF- synergises with IFN- to induce caspase-8-JAK1/2-STAT1-dependent death of intestinal epithelial cells. *Cell Death and Disease*, **2021**, 12, 864	9.8	6
17	Design and Validation of CRISPR/Cas9 Systems for Targeted Gene Modification in Induced Pluripotent Stem Cells. *Methods in Molecular Biology*, **2017**, 1498, 3-21	1.4	5
16	331. Development of Neisseria meningitidis CRISPR/Cas9 Systems for Efficient and Specific Genome Editing. *Molecular Therapy*, **2015**, 23, S132-S133	11.7	4
15	Highly Efficient Repair of the 508 Mutation in Airway Stem Cells of Cystic Fibrosis Patients with Functional Rescue of the Differentiated Epithelia		3
14	Pitfalls in Single Clone CRISPR-Cas9 Mutagenesis to Fine-map Regulatory Intervals. *Genes*, **2020**, 11,	4.2	2
13	Site-Specific Post-translational Surface Modification of Adeno-Associated Virus Vectors Using Leucine Zippers. *ACS Synthetic Biology*, **2020**, 9, 461-467	5.7	2
12	Gene Editing with Crispr-Cas9 for Treating Beta-Hemoglobinopathies. *Blood*, **2015**, 126, 3376-3376	2.2	2
11	Re-Creating Hereditary Persistence of Fetal Hemoglobin (HPFH) to Treat Sickle Cell Disease (SCD) and Thalassemia. *Blood*, **2016**, 128, 4708-4708	2.2	2
10	Targeted replacement of full-length CFTR in human airway stem cells by CRISPR/Cas9 for pan-mutation correction in the endogenous locus		2
9	TRACE-Seq Reveals Clonal Reconstitution Dynamics of Gene Targeted Human Hematopoietic Stem Cells		1
8	Gene Correction for SCID-X1 in Long-Term Hematopoietic Stem Cells		1
7	genome editing at the albumin locus to treat methylmalonic acidemia.. *Molecular Therapy - Methods and Clinical Development*, **2021**, 23, 619-632	6.4	0
6	Engineered Human Umbilical Cord Derived Erythroid Progenitor Cells (HUDEP2) with Sickle or Thalassemia Mutation: An in-Vitro System for Testing Pharmacological Induction of Fetal Hemoglobin. *Blood*, **2018**, 132, 3478-3478	2.2	0
5	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	2.2	0

List of Publications

4	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	2.2
3	Persistence of CRISPR/Cas9-Edited Hematopoietic Stem and Progenitor Cells and Reactivation of Fetal Hemoglobin in Nonhuman Primates. *Blood*, **2018**, 132, 806-806	2.2
2	Modulation of inhibitory signals in CAR T cells leads to improved activity against glioblastoma.. *Journal of Clinical Oncology*, **2020**, 38, 3031-3031	2.2
1	Identification and Validation of CRISPR/Cas9 Off-Target Activity in Hematopoietic Stem and Progenitor Cells.. *Methods in Molecular Biology*, **2022**, 2429, 281-306	1.4