Charles A Gersbach

List of Publications by Year in Descending Order

Source: https://exaly.com/author-pdf/7888604/charles-a-gersbach-publications-by-year.pdf
Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

117 papers	13,174 citations	46 h-index	114 g-index
139 ext. papers	15,800 ext. citations	14.9 avg, IF	7.16 L-index

#	Paper	IF	Citations
117	Cas9-specific immune responses compromise local and systemic AAV CRISPR therapy in multiple dystrophic canine models. *Nature Communications*, **2021**, 12, 6769	17.4	12
116	Branched-chain ketoacids are preferentially reaminated and activate protein synthesis in the heart. *Nature Communications*, **2021**, 12, 1680	17.4	20
115	AP-1 subunits converge promiscuously at enhancers to potentiate transcription. *Genome Research*, **2021**, 31, 538-550	9.7	4
114	The NIH Somatic Cell Genome Editing program. *Nature*, **2021**, 592, 195-204	50.4	21
113	CRISPR Clocks: The Times They Are a-ChanginW*CRISPR Journal*, **2021**, 4, 160-163	2.5	
112	Integrating Biomaterials and Genome Editing Approaches to Advance Biomedical Science. *Annual Review of Biomedical Engineering*, **2021**, 23, 493-516	12	3
111	Chromatin Remodeling of Colorectal Cancer Liver Metastasis is Mediated by an HGF-PU.1-DPP4 Axis. *Advanced Science*, **2021**, 8, e2004673	13.6	3
110	Transgenic mice for in vivo epigenome editing with CRISPR-based systems. *Nature Methods*, **2021**, 18, 965-974	21.6	7
109	Full-length dystrophin restoration via targeted exon integration by AAV-CRISPR in a humanized mouse model of Duchenne muscular dystrophy. *Molecular Therapy*, **2021**, 29, 3243-3257	11.7	3
108	Immunity to Cas9 as an Obstacle to Persistent Genome Editing. *Molecular Therapy*, **2020**, 28, 1389-1391	11.7	10
107	Prospective isolation of chondroprogenitors from human iPSCs based on cell surface markers identified using a CRISPR-Cas9-generated reporter. *Stem Cell Research and Therapy*, **2020**, 11, 66	8.3	25
106	Gene delivery into cells and tissues **2020**, 519-554		2
105	Myogenic Progenitor Cell Lineage Specification by CRISPR/Cas9-Based Transcriptional Activators. *Stem Cell Reports*, **2020**, 14, 755-769	8	11
104	The once and future gene therapy. *Nature Communications*, **2020**, 11, 5820	17.4	40
103	Master Regulators and Cofactors of Human Neuronal Cell Fate Specification Identified by CRISPR Gene Activation Screens. *Cell Reports*, **2020**, 33, 108460	10.6	11
102	Unwinding the Role of FACT in Cas9-based Genome Editing. *Molecular Cell*, **2020**, 79, 365-367	17.6	
101	Redirecting Vesicular Transport to Improve Nonviral Delivery of Molecular Cargo. *Advanced Biology*, **2020**, 4, e2000059	3.5	1

100	Gene Editing of Muscle Stem Cells with Adeno-Associated Viral Vectors in a Mouse Model of Duchenne Muscular Dystrophy. *Molecular Therapy - Methods and Clinical Development*, **2020**, 19, 320-329	6.4	17
99	Enhancer RNAs predict enhancer-gene regulatory links and are critical for enhancer function in neuronal systems. *Nucleic Acids Research*, **2020**, 48, 9550-9570	20.1	23
98	Enhancer Histone Acetylation Modulates Transcriptional Bursting Dynamics of Neuronal Activity-Inducible Genes. *Cell Reports*, **2019**, 26, 1174-1188.e5	10.6	65
97	The next generation of CRISPR-Cas technologies and applications. *Nature Reviews Molecular Cell Biology*, **2019**, 20, 490-507	48.7	498
96	Genome Editing for Duchenne Muscular Dystrophy **2019**, 383-403		1
95	Increasing the specificity of CRISPR systems with engineered RNA secondary structures. *Nature Biotechnology*, **2019**, 37, 657-666	44.5	156
94	Jumping at the chance for precise DNA integration. *Nature Biotechnology*, **2019**, 37, 1004-1006	44.5	0
93	AAV9 Edits Muscle Stem Cells in Normal and Dystrophic Adult Mice. *Molecular Therapy*, **2019**, 27, 1568-1585	8.7	32
92	An anionic, endosome-escaping polymer to potentiate intracellular delivery of cationic peptides, biomacromolecules, and nanoparticles. *Nature Communications*, **2019**, 10, 5012	17.4	30
91	Long-term evaluation of AAV-CRISPR genome editing for Duchenne muscular dystrophy. *Nature Medicine*, **2019**, 25, 427-432	50.5	189
90	Genome-wide CRISPR Screen to Identify Genes that Suppress Transformation in the Presence of Endogenous Kras. *Scientific Reports*, **2019**, 9, 17220	4.9	5
89	Targeted transcriptional modulation with type I CRISPR-Cas systems in human cells. *Nature Biotechnology*, **2019**, 37, 1493-1501	44.5	37
88	Step-Wise Chondrogenesis of Human Induced Pluripotent Stem Cells and Purification Via a Reporter Allele Generated by CRISPR-Cas9 Genome Editing. *Stem Cells*, **2019**, 37, 65-76	5.8	40
87	CRISPR-based methods for high-throughput annotation of regulatory DNA. *Current Opinion in Biotechnology*, **2018**, 52, 32-41	11.4	11
86	Boosting, Not Breaking: CRISPR Activators Treat Disease Models. *Molecular Therapy*, **2018**, 26, 334-336	11.7	3
85	Gene therapies for hemophilia hit the mark in clinical trials. *Nature Medicine*, **2018**, 24, 121-122	50.5	9
84	Pulling the genome in opposite directions to dissect gene networks. *Genome Biology*, **2018**, 19, 42	18.3	1
83	RNA-guided transcriptional silencing in vivo with S. aureus CRISPR-Cas9 repressors. *Nature Communications*, **2018**, 9, 1674	17.4	91

82	Screening Regulatory Element Function with CRISPR/Cas9-based Epigenome Editing. *Methods in Molecular Biology*, **2018**, 1767, 447-480	1.4	3
81	From CRISPR scissors to virus sensors. *Nature*, **2018**, 557, 168-169	50.4	9
80	Pre-established Chromatin Interactions Mediate the Genomic Response to Glucocorticoids. *Cell Systems*, **2018**, 7, 146-160.e7	10.6	41
79	AAV CRISPR editing rescues cardiac and muscle function for 18 months in dystrophic mice. *JCI Insight*, **2018**, 3,	9.9	56
78	Glucocorticoid receptor recruits to enhancers and drives activation by motif-directed binding. *Genome Research*, **2018**, 28, 1272-1284	9.7	46
77	Synthetic transcription factors for cell fate reprogramming. *Current Opinion in Genetics and Development*, **2018**, 52, 13-21	4.9	20
76	Editing the Epigenome: Reshaping the Genomic Landscape. *Annual Review of Genomics and Human Genetics*, **2018**, 19, 43-71	9.7	64
75	Genetic Engineering of Mesenchymal Stem Cells for Differential Matrix Deposition on 3D Woven Scaffolds. *Tissue Engineering - Part A*, **2018**, 24, 1531-1544	3.9	8
74	CRISPR-Based Epigenome Editing of Cytokine Receptors for the Promotion of Cell Survival and Tissue Deposition in Inflammatory Environments. *Tissue Engineering - Part A*, **2017**, 23, 738-749	3.9	44
73	Expanding the CRISPR Toolbox: Targeting RNA with Cas13b. *Molecular Cell*, **2017**, 65, 582-584	17.6	15
72	Bidirectional approaches for optogenetic regulation of gene expression in mammalian cells using Arabidopsis cryptochrome 2. *Nucleic Acids Research*, **2017**, 45, e167	20.1	39
71	Genome Engineering of Stem Cells for Autonomously Regulated, Closed-Loop Delivery of Biologic Drugs. *Stem Cell Reports*, **2017**, 8, 1202-1213	8	52
70	Mammalian Synthetic Biology: Engineering Biological Systems. *Annual Review of Biomedical Engineering*, **2017**, 19, 249-277	12	36
69	CRISPR-Cas9 epigenome editing enables high-throughput screening for functional regulatory elements in the human genome. *Nature Biotechnology*, **2017**, 35, 561-568	44.5	241
68	Genome engineering: a new approach to gene therapy for neuromuscular disorders. *Nature Reviews Neurology*, **2017**, 13, 647-661	15	45
67	Genome Engineering for Personalized Arthritis Therapeutics. *Trends in Molecular Medicine*, **2017**, 23, 917-931	11.5	40
66	An Engineered Optogenetic Switch for Spatiotemporal Control of Gene Expression, Cell Differentiation, and Tissue Morphogenesis. *ACS Synthetic Biology*, **2017**, 6, 2003-2013	5.7	26
65	Generation and comparison of CRISPR-Cas9 and Cre-mediated genetically engineered mouse models of sarcoma. *Nature Communications*, **2017**, 8, 15999	17.4	30

64	Loss-of-function genetic tools for animal models: cross-species and cross-platform differences. *Nature Reviews Genetics*, **2017**, 18, 24-40	30.1	113
63	CRISPR/Cas9 Editing of Murine Induced Pluripotent Stem Cells for Engineering Inflammation-Resistant Tissues. *Arthritis and Rheumatology*, **2017**, 69, 1111-1121	9.5	45
62	Genetic engineering: Chemical control for CRISPR editing. *Nature Chemical Biology*, **2017**, 13, 2-3	11.7	2
61	Incomplete MyoD-induced transdifferentiation is associated with chromatin remodeling deficiencies. *Nucleic Acids Research*, **2017**, 45, 11684-11699	20.1	17
60	Design, Assembly, and Characterization of TALE-Based Transcriptional Activators and Repressors. *Methods in Molecular Biology*, **2016**, 1338, 71-88	1.4	6
59	Gene therapies that restore dystrophin expression for the treatment of Duchenne muscular dystrophy. *Human Genetics*, **2016**, 135, 1029-40	6.3	52
58	Anatomically shaped tissue-engineered cartilage with tunable and inducible anticytokine delivery for biological joint resurfacing. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E4513-22	11.5	77
57	N-cadherin is Key to Expression of the Nucleus Pulposus Cell Phenotype under Selective Substrate Culture Conditions. *Scientific Reports*, **2016**, 6, 28038	4.9	28
56	Editing the epigenome: technologies for programmable transcription and epigenetic modulation. *Nature Methods*, **2016**, 13, 127-37	21.6	272
55	Genome-editing Technologies for Gene and Cell Therapy. *Molecular Therapy*, **2016**, 24, 430-46	11.7	413
54	In Vivo Zinc Finger Nuclease-mediated Targeted Integration of a Glucose-6-phosphatase Transgene Promotes Survival in Mice With Glycogen Storage Disease Type IA. *Molecular Therapy*, **2016**, 24, 697-706	11.7	12
53	Cas9 loosens its grip on off-target sites. *Nature Biotechnology*, **2016**, 34, 298-9	44.5	8
52	In vivo genome editing improves muscle function in a mouse model of Duchenne muscular dystrophy. *Science*, **2016**, 351, 403-7	33.3	774
51	The Development of TALE Nucleases for Biotechnology. *Methods in Molecular Biology*, **2016**, 1338, 27-42	1.4	24
50	Engineering Delivery Vehicles for Genome Editing. *Annual Review of Chemical and Biomolecular Engineering*, **2016**, 7, 637-62	8.9	75
49	Differential effects of toll-like receptor stimulation on mRNA-driven myogenic conversion of human and mouse fibroblasts. *Biochemical and Biophysical Research Communications*, **2016**, 478, 1484-90	3.4	6
48	Targeted Epigenetic Remodeling of Endogenous Loci by CRISPR/Cas9-Based Transcriptional Activators Directly Converts Fibroblasts to Neuronal Cells. *Cell Stem Cell*, **2016**, 19, 406-14	18	139
47	Correction of dystrophin expression in cells from Duchenne muscular dystrophy patients through genomic excision of exon 51 by zinc finger nucleases. *Molecular Therapy*, **2015**, 23, 523-32	11.7	86

46	Single-molecule analysis of myocyte differentiation reveals bimodal lineage commitment. *Integrative Biology (United Kingdom)*, **2015**, 7, 663-71	3.7	4
45	Regulation of chromatin accessibility and Zic binding at enhancers in the developing cerebellum. *Nature Neuroscience*, **2015**, 18, 647-56	25.5	105
44	Epigenome editing by a CRISPR-Cas9-based acetyltransferase activates genes from promoters and enhancers. *Nature Biotechnology*, **2015**, 33, 510-7	44.5	1141
43	Enabling functional genomics with genome engineering. *Genome Research*, **2015**, 25, 1442-55	9.7	67
42	Structure and specificity of the RNA-guided endonuclease Cas9 during DNA interrogation, target binding and cleavage. *Nucleic Acids Research*, **2015**, 43, 8924-41	20.1	72
41	Highly specific epigenome editing by CRISPR-Cas9 repressors for silencing of distal regulatory elements. *Nature Methods*, **2015**, 12, 1143-9	21.6	554
40	Knockdown of the cell cycle inhibitor p21 enhances cartilage formation by induced pluripotent stem cells. *Tissue Engineering - Part A*, **2015**, 21, 1261-74	3.9	11
39	Genome-wide specificity of DNA binding, gene regulation, and chromatin remodeling by TALE- and CRISPR/Cas9-based transcriptional activators. *Genome Research*, **2015**, 25, 1158-69	9.7	99
38	A light-inducible CRISPR-Cas9 system for control of endogenous gene activation. *Nature Chemical Biology*, **2015**, 11, 198-200	11.7	437
37	Enhanced MyoD-induced transdifferentiation to a myogenic lineage by fusion to a potent transactivation domain. *ACS Synthetic Biology*, **2015**, 4, 689-99	5.7	20
36	Multiplex CRISPR/Cas9-based genome editing for correction of dystrophin mutations that cause Duchenne muscular dystrophy. *Nature Communications*, **2015**, 6, 6244	17.4	307
35	Scaffold-mediated lentiviral transduction for functional tissue engineering of cartilage. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, E798-806	11.5	97
34	Tissue-engineered cartilage with inducible and tunable immunomodulatory properties. *Biomaterials*, **2014**, 35, 5921-31	15.6	79
33	Multiplex CRISPR/Cas9-based genome engineering from a single lentiviral vector. *Nucleic Acids Research*, **2014**, 42, e147	20.1	232
32	Genome engineering: the next genomic revolution. *Nature Methods*, **2014**, 11, 1009-11	21.6	22
31	Engineering synthetic TALE and CRISPR/Cas9 transcription factors for regulating gene expression. *Methods*, **2014**, 69, 188-97	4.6	27
30	Synthetic zinc finger proteins: the advent of targeted gene regulation and genome modification technologies. *Accounts of Chemical Research*, **2014**, 47, 2309-18	24.3	85
29	CRISPR technology for gene therapy. *Nature Medicine*, **2014**, 20, 476-7	50.5	15

28	Vector modifications to eliminate transposase expression following piggyBac-mediated transgenesis. *Scientific Reports*, **2014**, 4, 7403	4.9	2
27	A CRISPR/Cas9-based system for reprogramming cell lineage specification. *Stem Cell Reports*, **2014**, 3, 940-7	8	147
26	Light-inducible gene regulation with engineered zinc finger proteins. *Methods in Molecular Biology*, **2014**, 1148, 89-107	1.4	17
25	RNA-guided gene activation by CRISPR-Cas9-based transcription factors. *Nature Methods*, **2013**, 10, 973-6	21.6	861
24	How vinculin regulates force transmission. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 9788-93	11.5	175
23	Translating the genomics revolution: the need for an international gene therapy consortium for monogenic diseases. *Molecular Therapy*, **2013**, 21, 266-8	11.7	11
22	ZFN, TALEN, and CRISPR/Cas-based methods for genome engineering. *Trends in Biotechnology*, **2013**, 31, 397-405	15.1	2526
21	Reading frame correction by targeted genome editing restores dystrophin expression in cells from Duchenne muscular dystrophy patients. *Molecular Therapy*, **2013**, 21, 1718-26	11.7	141
20	Highly active zinc-finger nucleases by extended modular assembly. *Genome Research*, **2013**, 23, 530-8	9.7	71
19	The role of single-cell analyses in understanding cell lineage commitment. *Biotechnology Journal*, **2013**, 8, 397-407	5.6	2
18	Synergistic and tunable human gene activation by combinations of synthetic transcription factors. *Nature Methods*, **2013**, 10, 239-42	21.6	181
17	Advances in targeted genome editing. *Current Opinion in Chemical Biology*, **2012**, 16, 268-77	9.7	127
16	Gene targeting to the ROSA26 locus directed by engineered zinc finger nucleases. *Nucleic Acids Research*, **2012**, 40, 3741-52	20.1	61
15	Light-inducible spatiotemporal control of gene activation by customizable zinc finger transcription factors. *Journal of the American Chemical Society*, **2012**, 134, 16480-3	16.4	155
14	Structure-guided reprogramming of serine recombinase DNA sequence specificity. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 498-503	11.5	107
13	Targeted plasmid integration into the human genome by an engineered zinc-finger recombinase. *Nucleic Acids Research*, **2011**, 39, 7868-78	20.1	45
12	Directed evolution of recombinase specificity by split gene reassembly. *Nucleic Acids Research*, **2010**, 38, 4198-206	20.1	42
11	Synthesis of programmable integrases. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 5053-8	11.5	78

10	In vitro and in vivo osteoblastic differentiation of BMP-2- and Runx2-engineered skeletal myoblasts. *Journal of Cellular Biochemistry*, **2007**, 100, 1324-36	4.7	25
9	Identification of novel Runx2 targets in osteoblasts: cell type-specific BMP-dependent regulation of Tram2. *Journal of Cellular Biochemistry*, **2007**, 102, 1458-71	4.7	17
8	Virus-based gene therapy strategies for bone regeneration. *Biomaterials*, **2007**, 28, 211-29	15.6	96
7	Biomaterial-mediated retroviral gene transfer using self-assembled monolayers. *Biomaterials*, **2007**, 28, 5121-7	15.6	36
6	Genetic engineering for skeletal regenerative medicine. *Annual Review of Biomedical Engineering*, **2007**, 9, 87-119	12	29
5	Glucocorticoid-induced osteogenesis is negatively regulated by Runx2/Cbfa1 serine phosphorylation. *Journal of Cell Science*, **2006**, 119, 581-91	5.3	103
4	Myoblast proliferation and differentiation on fibronectin-coated self assembled monolayers presenting different surface chemistries. *Biomaterials*, **2005**, 26, 4523-31	15.6	173
3	Runx2/Cbfa1-genetically engineered skeletal myoblasts mineralize collagen scaffolds in vitro. *Biotechnology and Bioengineering*, **2004**, 88, 369-78	4.9	44
2	Runx2/Cbfa1 stimulates transdifferentiation of primary skeletal myoblasts into a mineralizing osteoblastic phenotype. *Experimental Cell Research*, **2004**, 300, 406-17	4.2	111
1	Enhancer RNAs predict enhancer-gene regulatory links and are critical for enhancer function in neuronal systems		6