Hyongbum-henry Kim

List of Publications by Year
in descending order

93 papers	6,855 citations	66343 42 h-index	64796 79 g-index
101 all docs	101 docs citations	101 times ranked	10253 citing authors

#	Article	IF	Citations
1	A guide to genome engineering with programmable nucleases. Nature Reviews Genetics, 2014, 15, 321-334.	16.3	990
2	Gene disruption by cell-penetrating peptide-mediated delivery of Cas9 protein and guide RNA. Genome Research, 2014, 24, 1020-1027.	5.5	552
3	Targeted genome editing in human cells with zinc finger nucleases constructed via modular assembly. Genome Research, 2009, 19, 1279-1288.	5.5	403
4	In vivo high-throughput profiling of CRISPRâ€“Cpf1 activity. Nature Methods, 2017, 14, 153-159.	19.0	305
5	Deep learning improves prediction of CRISPRâ€“Cpf1 guide RNA activity. Nature Biotechnology, 2018, 36, 239-241.	17.5	252
6	Surrogate reporters for enrichment of cells with nuclease-induced mutations. Nature Methods, 2011, 8, 941-943.	19.0	192
7	Predicting the efficiency of prime editing guide RNAs in human cells. Nature Biotechnology, 2021, 39, 198-206.	17.5	160
8	Somatic Mutations in TSC1 and TSC2 Cause Focal Cortical Dysplasia. American Journal of Human Genetics, 2017, 100, 454-472.	6.2	157
9	Constriction of the mitochondrial inner compartment is a priming event for mitochondrial division. Nature Communications, 2017, 8, 15754.	12.8	155
10	CD31 ⁺ Cells Represent Highly Angiogenic and Vasculogenic Cells in Bone Marrow. Circulation Research, 2010, 107, 602-614.	4.5	137
11	Prediction of the sequence-specific cleavage activity of Cas9 variants. Nature Biotechnology, 2020, 38, 1328-1336.	17.5	133
12	SpCas9 activity prediction by DeepSpCas9, a deep learningâ€“based model with high generalization performance. Science Advances, 2019, 5, eaax9249.	10.3	130
13	CD49f Enhances Multipotency and Maintains Stemness Through the Direct Regulation of OCT4 and SOX2. Stem Cells, 2012, 30, 876-887.	3.2	129
14	Surrogate reporter-based enrichment of cells containing RNA-guided Cas9 nuclease-induced mutations. Nature Communications, 2014, 5, 3378.	12.8	123
15	Sustained release of ascorbate-2-phosphate and dexamethasone from porous PLGA scaffolds for bone tissue engineering using mesenchymal stem cells. Biomaterials, 2003, 24, 4671-4679.	11.4	120
16	Dexamethasone coordinately regulates angiopoietin-1 and VEGF: A mechanism of glucocorticoid-induced stabilization of bloodâ€“brain barrier. Biochemical and Biophysical Research Communications, 2008, 372, 243-248.	2.1	116
17	Dual Angiogenic and Neurotrophic Effects of Bone Marrowâ€“Derived Endothelial Progenitor Cells on Diabetic Neuropathy. Circulation, 2009, 119, 699-708.	1.6	108
18	Human Peripheral Blood-Derived CD31+Cells Have Robust Angiogenic and Vasculogenic Properties and Are Effective for Treating Ischemic Vascular Disease. Journal of the American College of Cardiology, 2010, 56, 593-607.	2.8	108

#	Article	IF	Citations
19	Podoplanin-Expressing Cells Derived From Bone Marrow Play a Crucial Role in Postnatal Lymphatic Neovascularization. Circulation, 2010, 122, 1413-1425.	1.6	102
20	High-throughput analysis of the activities of xCas9, SpCas9-NG and SpCas9 at matched and mismatched target sequences in human cells. Nature Biomedical Engineering, 2020, 4, 111-124.	22.5	98
21	Application of prime editing to the correction of mutations and phenotypes in adult mice with liver and eye diseases. Nature Biomedical Engineering, 2022, 6, 181-194.	22.5	92
22	In vivo bone formation by human marrow stromal cells in biodegradable scaffolds that release dexamethasone and ascorbate-2-phosphate. Biochemical and Biophysical Research Communications, 2005, 332, 1053-1060.	2.1	83
23	Brain Somatic Mutations in MTOR Disrupt Neuronal Ciliogenesis, Leading to Focal Cortical Dyslamination. Neuron, 2018, 99, 83-97.e7.	8.1	83
24	Preassembled zinc-finger arrays for rapid construction of ZFNs. Nature Methods, 2011, 8, 7-7.	19.0	77
25	Sequence-specific prediction of the efficiencies of adenine and cytosine base editors. Nature Biotechnology, 2020, 38, 1037-1043.	17.5	73
26	The Effect of Mineral Trioxide Aggregate on Odontogenic Differentiation in Dental Pulp Stem Cells. Journal of Endodontics, 2013, 39, 242-248.	3.1	62
27	Pathological roles of the VEGF/SphK pathway in Niemannâ€"Pick type C neurons. Nature Communications, 2014, 5, 5514.	12.8	61
28	Diabetic Mesenchymal Stem Cells Are Ineffective for Improving Limb Ischemia Due to Their Impaired Angiogenic Capability. Cell Transplantation, 2015, 24, 1571-1584.	2.5	60
29	Paired D10A Cas9 nickases are sometimes more efficient than individual nucleases for gene disruption. Nucleic Acids Research, 2018, 46, e71-e71.	14.5	60
30	Regulation of pluripotency and differentiation by deubiquitinating enzymes. Cell Death and Differentiation, 2016, 23, 1257-1264.	11.2	59
31	Targeting mutant KRAS with CRISPR-Cas9 controls tumor growth. Genome Research, 2018, 28, 374-382.	5.5	59
32	Bone Marrow Mononuclear Cells Have Neurovascular Tropism and Improve Diabetic Neuropathy. Stem Cells, 2009, 27, 1686-1696.	3.2	58
33	Cell-Penetrating Peptide-Mediated Delivery of Cas9 Protein and Guide RNA for Genome Editing. Methods in Molecular Biology, 2017, 1507, 81-94.	0.9	58
34	Designed nucleases for targeted genome editing. Plant Biotechnology Journal, 2016, 14, 448-462.	8.3	57
35	Angiopoietin-2 Stimulates Blood Flow Recovery After Femoral Artery Occlusion by Inducing Inflammation and Arteriogenesis. Arteriosclerosis, Thrombosis, and Vascular Biology, 2008, 28, 1989-1995.	2.4	56
36	Magnetic Separation and Antibiotics Selection Enable Enrichment of Cells with ZFN/TALEN-Induced Mutations. PLoS ONE, 2013, 8, e56476.	2.5	55

#	Article	IF	Citations
37	Multi-functional ceramic hybrid coatings on biodegradable AZ31 Mg implants: electrochemical, tribological and quantum chemical aspects for orthopaedic applications. RSC Advances, 2014, 4, 24272.	3.6	54
38	Alteration of Synaptic Activityâ€"Regulating Genes Underlying Functional Improvement by Long-term Exposure to an Enriched Environment in the Adult Brain. Neurorehabilitation and Neural Repair, 2013, 27, 561-574.	2.9	50
39	Doxycycline Enhances Survival and Self-Renewal of Human Pluripotent Stem Cells. Stem Cell Reports, 2014, 3, 353-364.	4.8	50
40	Generation of a more efficient prime editor 2 by addition of the Rad51 DNA-binding domain. Nature Communications, 2021, 12, 5617.	12.8	47
41	Targeted Genome Engineering to Control VEGF Expression in Human Umbilical Cord Blood-Derived Mesenchymal Stem Cells: Potential Implications for the Treatment of Myocardial Infarction. Stem Cells Translational Medicine, 2017, 6, 1040-1051.	3.3	43
42	Effect of Ionizing Radiation Induced Damage of Endothelial Progenitor Cells in Vascular Regeneration. Arteriosclerosis, Thrombosis, and Vascular Biology, 2012, 32, 343-352.	2.4	42
43	Electrochemical and in vitro bioactivity of polypyrrole/ceramic nanocomposite coatings on 316L SS bio-implants. Materials Science and Engineering C, 2014, 43, 76-85.	7.3	42
44	Interaction of Mesenchymal Stem Cells and Osteoblasts for in vitro Osteogenesis. Yonsei Medical Journal, 2003, 44, 187.	2.2	42
45	Emerging Therapy for Diabetic Neuropathy: Cell Therapy Targeting Vessels and Nerves. Endocrine, Metabolic and Immune Disorders - Drug Targets, 2012, 12, 168-178.	1.2	39
46	An autophagy enhancer ameliorates diabetes of human IAPP-transgenic mice through clearance of amyloidogenic oligomer. Nature Communications, 2021, 12, 183.	12.8	36
47	Astroglial Activation by an Enriched Environment after Transplantation of Mesenchymal Stem Cells Enhances Angiogenesis after Hypoxic-Ischemic Brain Injury. International Journal of Molecular Sciences, 2016, 17, 1550.	4.1	33
48	High-throughput functional evaluation of human cancer-associated mutations using base editors. Nature Biotechnology, 2022, 40, 874-884.	17.5	32
49	Environmental enrichment enhances synaptic plasticity by internalization of striatal dopamine transporters. Journal of Cerebral Blood Flow and Metabolism, 2016, 36, 2122-2133.	4.3	31
50	Genome-scale screening of deubiquitinase subfamily identifies USP3 as a stabilizer of Cdc25A regulating cell cycle in cancer. Cell Death and Differentiation, 2020, 27, 3004-3020.	11.2	31
51	Hepatitis C Virus Entry Is Impaired by Claudin-1 Downregulation in Diacylglycerol Acyltransferase-1-Deficient Cells. Journal of Virology, 2014, 88, 9233-9244.	3.4	30
52	Repair of Ischemic Injury by Pluripotent Stem Cell Based Cell Therapy without Teratoma through Selective Photosensitivity. Stem Cell Reports, 2015, 5, 1067-1080.	4.8	30
53	Effective Gene Delivery into Human Stem Cells with a Cell-Targeting Peptide-Modified Bioreducible Polymer. Small, 2015, 11, 2069-2079.	10.0	29
54	Recording of elapsed time and temporal information about biological events using Cas9. Cell, 2021, 184, 1047-1063.e23.	28.9	29

#	Article	IF	Citations
55	En blocand segmental deletions of humanXISTreveal X chromosome inactivation-involving RNA elements. Nucleic Acids Research, 2019, 47, 3875-3887.	14.5	28
56	Novel genes and cellular pathways related to infection with adenovirus-36 as an obesity agent in human mesenchymal stem cells. International Journal of Obesity, 2012, 36, 195-200.	3.4	27
57	GalNAc-T14 promotes metastasis through Wnt dependentHOXB9expression in lung adenocarcinoma. Oncotarget, 2015, 6, 41916-41928.	1.8	27
58	An electrochemical, in vitro bioactivity, and quantum chemical approach to nanostructured copolymer coatings for orthopedic applications. Journal of Materials Science, 2014, 49, 4067-4080.	3.7	26
59	Chemical Controllable Gene Drive in Drosophila. ACS Synthetic Biology, 2020, 9, 2362-2377.	3.8	26
60	In vivo outer hair cell gene editing ameliorates progressive hearing loss in dominant-negative Kcnq4 murine model. Theranostics, 2022, 12, 2465-2482.	10.0	26
61	Recent developments and clinical studies utilizing engineered zinc finger nuclease technology. Cellular and Molecular Life Sciences, 2015, 72, 3819-3830.	5.4	25
62	Elucidation of Relevant Neuroinflammation Mechanisms Using Gene Expression Profiling in Patients with Amyotrophic Lateral Sclerosis. PLoS ONE, 2016, 11, e0165290.	2.5	25
63	Advances in bone marrow-derived cell therapy: CD31-expressing cells as next generation cardiovascular cell therapy. Regenerative Medicine, 2011, 6, 335-349.	1.7	24
64	Concise Review: Fate Determination of Stem Cells by Deubiquitinating Enzymes. Stem Cells, 2017, 35, 9-16.	3.2	24
65	<scp>LIN</scp> 28A loss of function is associated with Parkinson's disease pathogenesis. EMBO Journal, 2019, 38, e101196.	7.8	23
66	Stability of Zinc Finger Nuclease Protein Is Enhanced by the Proteasome Inhibitor MG132. PLoS ONE, 2013, 8, e54282.	2.5	21
67	Enrichment of cells with TALEN-induced mutations using surrogate reporters. Methods, 2014, 69, 108-117.	3.8	21
68	Off-target response of a Wip1 chemical inhibitor in skin keratinocytes. Journal of Dermatological Science, 2014, 73, 125-134.	1.9	21
69	CRISPR/Cas9 system as an innovative genetic engineering tool: Enhancements in sequence specificity and delivery methods. Biochimica Et Biophysica Acta: Reviews on Cancer, 2015, 1856, 234-243.	7.4	19
70	Expression of short hairpin RNAs against the coxsackievirus B3 exerts potential antiviral effects in Cos-7 cells and in mice. Virus Research, 2007, 125, 9-13.	2.2	17
71	Environmental Enrichment Synergistically Improves Functional Recovery by Transplanted Adipose Stem Cells in Chronic Hypoxic-Ischemic Brain Injury. Cell Transplantation, 2013, 22, 1553-1568.	2.5	17
72	Evaluation of chemically modified Tiâ€“5Moâ€“3Fe alloy surface: Electrochemical aspects and in vitro bioactivity on MG63 cells. Applied Surface Science, 2014, 307, 52-61.	6.1	17

#	Article	IF	Citations
73	Cell Therapy with Bone Marrow Cells for Myocardial Regeneration. Antioxidants and Redox Signaling, 2009, 11, 1897-1911.	5.4	16
74	Early Immunomodulation by Intravenously Transplanted Mesenchymal Stem Cells Promotes Functional Recovery in Spinal Cord Injured Rats. Cell Medicine, 2011, 2, 55-68.	5.0	16
75	Rh D blood group conversion using transcription activator-like effector nucleases. Nature Communications, 2015, 6, 7451.	12.8	16
76	Deficiency in DGCR8-dependent canonical microRNAs causes infertility due to multiple abnormalities during uterine development in mice. Scientific Reports, 2016, 6, 20242.	3.3	16
77	Therapeutic application of the CRISPR system: current issues and new prospects. Human Genetics, 2019, 138, 563-590.	3.8	16
78	Bone tissue engineering using marrow stromal cells. Biotechnology and Bioprocess Engineering, 2007, 12, 48-53.	2.6	14
79	Genome Engineering in Human Cells. Methods in Enzymology, 2014, 546, 93-118.	1.0	13
80	In Situ Pluripotency Factor Expression Promotes Functional Recovery From Cerebral Ischemia. Molecular Therapy, 2016, 24, 1538-1549.	8.2	13
81	Dexamethasone increases angiopoietinâ€1 and quiescent hematopoietic stem cells: A novel mechanism of dexamethasoneâ€induced hematoprotection. FEBS Letters, 2008, 582, 3509-3514.	2.8	11
82	Basic Principles and Clinical Applications of CRISPR-Based Genome Editing. Yonsei Medical Journal, 2022, 63, 105.	2.2	11
83	RanBPM: a potential therapeutic target for modulating diverse physiological disorders. Drug Discovery Today, 2017, 22, 1816-1824.	6.4	10
84	InÂvivo gene correction with targeted sequence substitution through microhomology-mediated end joining. Biochemical and Biophysical Research Communications, 2018, 502, 116-122.	2.1	9
85	Generation of Î”F508-CFTR T84 cell lines by CRISPR/Cas9-mediated genome editing. Biotechnology Letters, 2016, 38, 2023-2034.	2.2	7
86	Enhanced gene disruption by programmable nucleases delivered by a minicircle vector. Gene Therapy, 2014, 21, 921-930.	4.5	6
87	Coxsackievirus B3 used as a gene therapy vector to express functional FGF2. Gene Therapy, 2012, 19, 1159-1165.	4.5	5
88	Production of Mutated Porcine Embryos Using Zinc Finger Nucleases and a Reporter-based Cell Enrichment System. Asian-Australasian Journal of Animal Sciences, 2014, 27, 324-329.	2.4	5
89	Generation of mutation-corrected induced pluripotent stem cell lines derived from adrenoleukodystrophy patient by using homology directed repair. Stem Cell Research, 2022, 59, 102664.	0.7	2
90	Programmable Nuclease-Based Integration into Novel Extragenic Genomic Safe Harbor Identified from Korean Population-Based CNV Analysis. Molecular Therapy - Oncolytics, 2019, 14, 253-265.	4.4	1

#	Article	IF	Citations
91	Improving CRISPR tools by elucidating DNA repair. Nature Biotechnology, 2021, 39, 1512-1514.	17.5	1
92	Development of an Electroporation System for Preclinical Use. , 2008, , .		0
93	Heroes of peer review: Hyongbum (Henry) Kim. Genome Biology, 2016, 17, 200.	8.8	0