Kiran Musunuru

List of Publications by Year
in descending order

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127	19,088	47006 47	22832 112
papers	citations	h-index	g-index

133	133	133	27305
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Biological, clinical and population relevance of 95 loci for blood lipids. Nature, 2010, 466, 707-713.	27.8	3,249
2	Plasma HDL cholesterol and risk of myocardial infarction: a mendelian randomisation study. Lancet, The, 2012, 380, 572-580.	13.7	1,937
3	Large-scale association analysis identifies 13 new susceptibility loci for coronary artery disease. Nature Genetics, 2011, 43, 333-338.	21.4	1,685
4	From noncoding variant to phenotype via SORT1 at the 1p13 cholesterol locus. Nature, 2010, 466, 714-719.	27.8	1,018
5	Circular non-coding RNA ANRIL modulates ribosomal RNA maturation and atherosclerosis in humans. Nature Communications, 2016, 7, 12429.	12.8	859
6	Exome Sequencing,ANGPTL3Mutations, and Familial Combined Hypolipidemia. New England Journal of Medicine, 2010, 363, 2220-2227.	27.0	640
7	Modelling kidney disease with CRISPR-mutant kidney organoids derived from human pluripotent epiblast spheroids. Nature Communications, 2015, 6, 8715.	12.8	571
8	A dual AAV system enables the Cas9-mediated correction of a metabolic liver disease in newborn mice. Nature Biotechnology, 2016, 34, 334-338.	17.5	476
9	Exome-wide association study of plasma lipids in >300,000 individuals. Nature Genetics, 2017, 49, 1758-1766.	21.4	470
10	A TALEN Genome-Editing System for Generating Human Stem Cell-Based Disease Models. Cell Stem Cell, 2013, 12, 238-251.	11.1	464
11	Low Incidence of Off-Target Mutations in Individual CRISPR-Cas9 and TALEN Targeted Human Stem Cell Clones Detected by Whole-Genome Sequencing. Cell Stem Cell, 2014, 15, 27-30.	11.1	456
12	Enhanced Efficiency of Human Pluripotent Stem Cell Genome Editing through Replacing TALENs with CRISPRs. Cell Stem Cell, 2013, 12, 393-394.	11.1	449
13	Permanent Alteration of PCSK9 With In Vivo CRISPR-Cas9 Genome Editing. Circulation Research, 2014, 115, 488-492.	4.5	439
14	In vivo CRISPR base editing of PCSK9 durably lowers cholesterol in primates. Nature, 2021, 593, 429-434.	27.8	408
15	Efficient Ablation of Genes in Human Hematopoietic Stem and Effector Cells using CRISPR/Cas9. Cell Stem Cell, 2014, 15, 643-652.	11.1	406
16	Expanding the genetic editing tool kit: ZFNs, TALENs, and CRISPR-Cas9. Journal of Clinical Investigation, 2014, 124, 4154-4161.	8.2	369
17	ANGPTL3 Deficiency and Protection Against Coronary Artery Disease. Journal of the American College of Cardiology, 2017, 69, 2054-2063.	2.8	348
18	Atherogenic Dyslipidemia: Cardiovascular Risk and Dietary Intervention. Lipids, 2010, 45, 907-914.	1.7	251

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19	Engineered virus-like particles for efficient inÂvivo delivery of therapeutic proteins. Cell, 2022, 185, 250-265.e16.	28.9	251
20	Genetic Testing for Inherited Cardiovascular Diseases: A Scientific Statement From the American Heart Association. Circulation Genomic and Precision Medicine, 2020, 13, e000067.	3.6	200
21	Hepatic sortilin regulates both apolipoprotein B secretion and LDL catabolism. Journal of Clinical Investigation, 2012, 122, 2807-2816.	8.2	190
22	In Vivo Base Editing of PCSK9 (Proprotein Convertase Subtilisin/Kexin Type 9) as a Therapeutic Alternative to Genome Editing. Arteriosclerosis, Thrombosis, and Vascular Biology, 2017, 37, 1741-1747.	2.4	181
23	In utero CRISPR-mediated therapeutic editing of metabolic genes. Nature Medicine, 2018, 24, 1513-1518.	30.7	169
24	Human Germline Genome Editing. American Journal of Human Genetics, 2017, 101, 167-176.	6.2	168
25	Genetics of Common, Complex Coronary Artery Disease. Cell, 2019, 177, 132-145.	28.9	166
26	Induced Pluripotent Stem Cells for Cardiovascular Disease Modeling and Precision Medicine: A Scientific Statement From the American Heart Association. Circulation Genomic and Precision Medicine, 2018, 11, e000043.	3.6	159
27	Ion Mobility Analysis of Lipoprotein Subfractions Identifies Three Independent Axes of Cardiovascular Risk. Arteriosclerosis, Thrombosis, and Vascular Biology, 2009, 29, 1975-1980.	2.4	147
28	Regulatory variants at KLF14 influence type 2 diabetes risk via a female-specific effect on adipocyte size and body composition. Nature Genetics, 2018, 50, 572-580.	21.4	143
29	Large, Diverse Population Cohorts of hiPSCs and Derived Hepatocyte-like Cells Reveal Functional Genetic Variation at Blood Lipid-Associated Loci. Cell Stem Cell, 2017, 20, 558-570.e10.	11.1	138
30	Surprises From Genetic Analyses of Lipid Risk Factors for Atherosclerosis. Circulation Research, 2016, 118, 579-585.	4.5	131
31	Induced Pluripotent Stem Cell Differentiation Enables Functional Validation of GWAS Variants in Metabolic Disease. Cell Stem Cell, 2017, 20, 547-557.e7.	11.1	129
32	The use of high-sensitivity assays for C-reactive protein in clinical practice. Nature Clinical Practice Cardiovascular Medicine, 2008, 5, 621-635.	3.3	123
33	Reduced Blood Lipid Levels With In Vivo CRISPR-Cas9 Base Editing of ANGPTL3. Circulation, 2018, 137, 975-977.	1.6	122
34	CRISPR-Cas9 Targeting of PCSK9 in Human Hepatocytes In Vivoâ€"Brief Report. Arteriosclerosis, Thrombosis, and Vascular Biology, 2016, 36, 783-786.	2.4	118
35	Genome editing of human pluripotent stem cells to generate human cellular disease models. DMM Disease Models and Mechanisms, 2013, 6, 896-904.	2.4	113
36	In utero gene editing for monogenic lung disease. Science Translational Medicine, 2019, 11, .	12.4	83

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37	Role of angiopoietin-like 3 (ANGPTL3) in regulating plasma level of low-density lipoprotein cholesterol. Atherosclerosis, 2018, 268, 196-206.	0.8	81
38	Myocardial Infarctionâ€“Associated SNP at 6p24 Interferes With MEF2 Binding and Associates With PHACTR1 Expression Levels in Human Coronary Arteries. Arteriosclerosis, Thrombosis, and Vascular Biology, 2015, 35, 1472-1479.	2.4	78
39	Targeted Application of Human Genetic Variation Can Improve Red Blood Cell Production from Stem Cells. Cell Stem Cell, 2016, 18, 73-78.	11.1	78
40	Genome editing in cardiovascular diseases. Nature Reviews Cardiology, 2017, 14, 11-20.	13.7	76
41	Genetics of Coronary Artery Disease. Annual Review of Genomics and Human Genetics, 2010, 11, 91-108.	6.2	73
42	ESRP1 Mutations Cause Hearing Loss due to Defects in Alternative Splicing that Disrupt Cochlear Development. Developmental Cell, 2017, 43, 318-331.e5.	7.0	68
43	Enhancing Literacy in Cardiovascular Genetics: A Scientific Statement From the American Heart Association. Circulation: Cardiovascular Genetics, 2016, 9, 448-467.	5.1	64
44	Stem Cell Models of Cardiac Development and Disease. Annual Review of Cell and Developmental Biology, 2010, 26, 667-687.	9.4	63
45	Association of Single Nucleotide Polymorphisms on Chromosome 9p21.3 With Platelet Reactivity. Circulation: Cardiovascular Genetics, 2010, 3, 445-453.	5.1	61
46	Noncoding RNAs in Cardiovascular Disease: Current Knowledge, Tools and Technologies for Investigation, and Future Directions: A Scientific Statement From the American Heart Association. Circulation Genomic and Precision Medicine, 2020, 13, e000062.	3.6	61
47	Pathogenic LMNA variants disrupt cardiac lamina-chromatin interactions and de-repress alternative fate genes. Cell Stem Cell, 2021, 28, 938-954.e9.	11.1	61
48	Asialoglycoprotein receptor 1 is a specific cell-surface marker for isolating hepatocytes derived from human pluripotent stem cells. Development (Cambridge), 2016, 143, 1475-1481.	2.5	47
49	NLRP2 is a suppressor of NF-Æ™B signaling and HLA-C expression in human trophoblastsâ€,â€¡. Biology of Reproduction, 2017, 96, 831-842.	2.7	45
50	The Hope and Hype of CRISPR-Cas9 Genome Editing. JAMA Cardiology, 2017, 2, 914.	6.1	43
51	Basic Concepts and Potential Applications of Genetics and Genomics for Cardiovascular and Stroke Clinicians. Circulation: Cardiovascular Genetics, 2015, 8, 216-242.	5.1	41
52	Transcriptome-Wide Analysis Reveals Modulation of Human Macrophage Inflammatory Phenotype Through Alternative Splicing. Arteriosclerosis, Thrombosis, and Vascular Biology, 2016, 36, 1434-1447.	2.4	35
53	Investigation of a dilated cardiomyopathyâ€“associated variant in BAG3 using genome-edited iPSC-derived cardiomyocytes. JCI Insight, 2019, 4, .	5.0	35
54	Race, Natriuretic Peptides, and High-Carbohydrate Challenge. Circulation Research, 2019, 125, 957-968.	4.5	34

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55	Novel Genome-Editing Tools to Model and Correct Primary Immunodeficiencies. Frontiers in Immunology, 2015, 6, 250.	4.8	32
56	Genome-Edited Human Pluripotent Stem Cellâ€“Derived Macrophages as a Model of Reverse Cholesterol Transportâ€”Brief Report. Arteriosclerosis, Thrombosis, and Vascular Biology, 2016, 36, 15-18.	2.4	32
57	Functional Annotation of TNNT2 Variants of Uncertain Significance With Genome-Edited Cardiomyocytes. Circulation, 2018, 138, 2852-2854.	1.6	32
58	In utero adenine base editing corrects multi-organ pathology in a lethal lysosomal storage disease. Nature Communications, 2021, 12, 4291.	12.8	32
59	Angiopoietin-Like 3. JACC Basic To Translational Science, 2019, 4, 755-762.	4.1	31
60	Confirmation of Causal rs9349379- PHACTR1 Expression Quantitative Trait Locus in Human-Induced Pluripotent Stem Cell Endothelial Cells. Circulation Genomic and Precision Medicine, 2018, 11, e002327.	3.6	29
61	Interrogation of the Atherosclerosis-Associated SORT1 (Sortilin 1) Locus With Primary Human Hepatocytes, Induced Pluripotent Stem Cell-Hepatocytes, and Locus-Humanized Mice. Arteriosclerosis, Thrombosis, and Vascular Biology, 2018, 38, 76-82.	2.4	28
62	Paraneoplastic opsoclonus-myoclonus ataxia associated with non-small-cell lung carcinoma. Journal of Neuro-Oncology, 2008, 90, 213-216.	2.9	27
63	Genome Editing. Journal of the American College of Cardiology, 2017, 70, 2808-2821.	2.8	27
64	Modulators of Hepatic Lipoprotein Metabolism Identified in a Search for Small-Molecule Inducers of Tribbles Pseudokinase 1 Expression. PLoS ONE, 2015, 10, e0120295.	2.5	25
65	The clinical application of gene editing: ethical and social issues. Personalized Medicine, 2019, 16, 337-350.	1.5	25
66	Genetic and Chemical Screenings Identify HDAC3 as a Key Regulator inÂHepatic Differentiation of Human Pluripotent Stem Cells. Stem Cell Reports, 2018, 11, 22-31.	4.8	24
67	Genome engineering tools for building cellular models of disease. FEBS Journal, 2016, 283, 3222-3231.	4.7	23
68	CRISPR-Cas9 Genome Editing for Treatment of Atherogenic Dyslipidemia. Arteriosclerosis, Thrombosis, and Vascular Biology, 2018, 38, 12-18.	2.4	23
69	Active learning-based STEM education for in-person and online learning. Cell, 2021, 184, 1409-1414.	28.9	23
70	Moving toward genome-editing therapies for cardiovascular diseases. Journal of Clinical Investigation, 2022, 132, .	8.2	22
71	Genome Editing for the Study of Cardiovascular Diseases. Current Cardiology Reports, 2017, 19, 22.	2.9	21
72	Is ANGPTL3 the next PCSK9?. Nature Reviews Endocrinology, 2017, 13, 503-504.	9.6	21

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73	Functional Assays to Screen and Dissect Genomic Hits. Circulation Genomic and Precision Medicine, 2018, 11, e002178.	3.6	18
74	HapMap and Mapping Genes for Cardiovascular Disease. Circulation: Cardiovascular Genetics, 2008, 1, 66-71.	5.1	17
75	Cardiovascular Pharmacogenomics: Current Status and Future Directionsâ€"Report of a National Heart, Lung, and Blood Institute Working Group. Journal of the American Heart Association, 2012, 1, e000554.	3.7	17
76	From Genotype to Phenotype. Circulation Genomic and Precision Medicine, 2018, 11, .	3.6	16
77	What do we do now?: Responding to claims of germline gene editing in humans. Genetics in Medicine, 2019, 21, 2181-2183.	2.4	15
78	Chronobiology of Natriuretic PeptidesÂand Blood Pressure in LeanÂandÂObese Individuals. Journal of the American College of Cardiology, 2021, 77, 2291-2303.	2.8	15
79	Treatment of Dyslipidemia Using CRISPR/Cas9 Genome Editing. Current Atherosclerosis Reports, 2017, 19, 32.	4.8	13
80	Cardioprotective Effects of MTSS1 Enhancer Variants. Circulation, 2019, 139, 2073-2076.	1.6	12
81	Treating Coronary Artery Disease: Beyond Statins, Ezetimibe, and PCSK9 Inhibition. Annual Review of Medicine, 2021, 72, 447-458.	12.2	12
82	Rapid generation of novel models of RAG1 deficiency by CRISPR/Cas9-induced mutagenesis in murine zygotes. Oncotarget, 2016, 7, 12962-12974.	1.8	11
83	Functional evaluation of genetic variation in complex human traits. Human Molecular Genetics, 2012, 21, R18-R23.	2.9	10
84	Turning up the Heat with Therapeutic Epigenome Editing. Cell Stem Cell, 2018, 22, 10-11.	11.1	10
85	Interdisciplinary Models for Research and Clinical Endeavors in Genomic Medicine: A Scientific Statement From the American Heart Association. Circulation Genomic and Precision Medicine, 2018, 11, e000046.	3.6	10
86	CRISPR and cardiovascular diseases. Cardiovascular Research, 2023, 119, 79-93.	3.8	10
87	From Hypertrophy to Heart Failure: What Is New in Genetic Cardiomyopathies. Current Heart Failure Reports, 2019, 16, 157-167.	3.3	9
88	EDEM3 Modulates Plasma Triglyceride Level through Its Regulation of LRP1 Expression. IScience, 2020, 23, 100973.	4.1	8
89	Therapeutic application of genome editing in dyslipidemia. Current Opinion in Lipidology, 2022, 33, 133-138.	2.7	8
90	Enduring Mystery of the Chromosome 9p21.3 Locus. Circulation: Cardiovascular Genetics, 2013, 6, 224-225.	5.1	7

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91	Personalized Genomes and Cardiovascular Disease. Cold Spring Harbor Perspectives in Medicine, 2015, 5, a014068-a014068.	6.2	7
92	Improving Genomic Literacy Among Cardiovascular Practitioners via a Flipped-Classroom Workshop at a National Meeting. Circulation: Cardiovascular Genetics, 2016, 9, 287-290.	5.1	7
93	How genome editing could be used in the treatment of cardiovascular diseases. Personalized Medicine, 2018, 15, 67-69.	1.5	7
94	Adipocyte-Specific Modulation of KLF14 Expression in Mice Leads to Sex-Dependent Impacts on Adiposity and Lipid Metabolism. Diabetes, 2022, 71, 677-693.	0.6	7
95	Selfâ€Organizing Human Induced Pluripotent Stem Cell Hepatocyte 3D Organoids Inform the Biology of the Pleiotropic TRIB1 Gene. Hepatology Communications, 2020, 4, 1316-1331.	4.3	6
96	The Implications of the Ezetimibe and Simvastatin in Hypercholesterolemia Enhances Atherosclerosis Regression Trial: A Return to First Principles. Clinical Cardiology, 2008, 31, 288-290.	1.8	5
97	(Pro)renin Receptor and LDL Clearance. Circulation Research, 2016, 118, 187-189.	4.5	5
98	Challenges and advances of CRISPR-Cas9 genome editing in therapeutics. Cardiovascular Research, 2019, 115, e12-e14.	3.8	5
99	From Genotype to Phenotype: A Primer on the Functional Follow-up of Genome-Wide Association Studies in Cardiovascular Disease. Circulation Genomic and Precision Medicine, 2018, 11, .	3.6	5
100	Novel tricyclic glycal-basedTRIB1inducers that reprogram LDL metabolism in hepatic cells. MedChemComm, 2018, 9, 1831-1842.	3.4	4
101	CRISPR Hits Home in a First-in-Human Study. CRISPR Journal, 2021, 4, 460-461.	2.9	4
102	Regulatory Elements in Noncoding DNA in the Chromosome 9p21 Locus. Circulation: Cardiovascular Genetics, 2011, 4, 330-331.	5.1	3
103	Lack of Association of KIF6 Genotype With Vascular Disease and Statin Response. Circulation: Cardiovascular Genetics, 2011, 4, 467-468.	5.1	2
104	Why Human Embryo Editing Should Be Banned. CRISPR Journal, 2019, 2, 356-358.	2.9	2
105	BRCA1/2 Mutations and Cardiovascular Function in Breast Cancer Survivors. Frontiers in Cardiovascular Medicine, 2022, 9, 833171.	2.4	2
106	A synergistic relationship of elevated low-density lipoprotein cholesterol levels and systolic blood pressure with coronary artery calcification. Atherosclerosis, 2008, 200, 368-373.	0.8	1
107	Current Role of Pharmacogenomics in Cardiovascular Medicine. Current Treatment Options in Cardiovascular Medicine, 2011, 13, 302-312.	0.9	1
108	Transforming Growth factor Î² 2 Mutations and Familial Thoracic Aortic Aneurysms. Circulation: Cardiovascular Genetics, 2012, 5, 593-594.	5.1	1

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109	Stem cell modeling of lipid genetics. Current Opinion in Lipidology, 2018, 29, 151-155.	2.7	1
110	Adenine base editing to treat progeria syndrome and extend the lifespan. , 2021, 1, .		1
111	Assessing for off-target mutagenesis. , 2021, , 81-100.		1
112	Abstract 70: KLF14 is a Novel Regulator of Human Metabolism. Arteriosclerosis, Thrombosis, and Vascular Biology, 2014, 34, .	2.4	1
113	Induction of Cardiomyocytes From Cardiac Fibroblasts. Circulation: Cardiovascular Genetics, 2012, 5, 481-482.	5.1	0
114	Exome Sequencing to Identify Novel Genes in Hypertension. Circulation: Cardiovascular Genetics, 2012, 5, 267-268.	5.1	0
115	Identification of a Growth Factor That Rejuvenates the Heart. Circulation: Cardiovascular Genetics, 2013, 6, 435-436.	5.1	0
116	Genome Editing of a CArG Element in the Mouse Genome Establishes its Role in Gene Expression. Arteriosclerosis, Thrombosis, and Vascular Biology, 2015, 35, 496-497.	2.4	0
117	Correcting tyrosinaemia via a point mutation. Nature Biomedical Engineering, 2020, 4, 14-15.	22.5	0
118	Genome editing for cellular disease modeling. , 2021, , 145-167.		0
119	Base editing. , 2021, , 101-121.		0
120	Therapeutic genome editing. , 2021, , 193-211.		0
121	Base editing: a brief review and a practical example. Journal of Biomedical Research, 2021, 35, 107.	1.6	0
122	Genome editing for functional experiments and screens. , 2021, , 169-191.		0
123	Abstract 5: Sortilin Regulates Hepatic VLDL Secretion and LDL Uptake in a Lysosome-Dependent Manner. Arteriosclerosis, Thrombosis, and Vascular Biology, 2012, 32, .	2.4	0
124	Abstract 242: Functional Characterization of a Cis-eQTL Locus for Plasma Cholesterol Using CRISPR/Cas Genome Editing in Human Pluripotent Stem Cells. Arteriosclerosis, Thrombosis, and Vascular Biology, 2014, 34, .	2.4	0
125	Detoxifying chemotherapy with genetics-guided stem cell modeling: A personalized affair. Cell Stem Cell, 2021, 28, 2039-2040.	11.1	0
126	Abstract 21: Sortilin Is a Novel Mediator of Cellular Low-Density Lipoprotein Uptake. Arteriosclerosis, Thrombosis, and Vascular Biology, 2012, 32, .	2.4	0

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127	Abstract 27: Therapeutic Targeting of Human Lipid Genes With in vivo CRISPR-Cas9 Genome Editing. Arteriosclerosis, Thrombosis, and Vascular Biology, 2015, 35, .	2.4	0