Kiran Musunuru

List of Publications by Year in Descending Order

118 papers	14,109 citations	42 h-index	118 g-index
133 ext. papers	17,093 ext. citations	13.6 avg, IF	6.27 L-index

#	Paper	IF	Citations
118	Adipocyte-Specific Modulation of KLF14 Expression in Mice Leads to Sex-Dependent Impacts on Adiposity and Lipid Metabolism.. *Diabetes*, **2022**,	0.9	1
117	Engineered virus-like particles for efficient in vivo delivery of therapeutic proteins.. *Cell*, **2022**, 185, 250-265.e16	56.2	66
116	Moving toward genome-editing therapies for cardiovascular diseases.. *Journal of Clinical Investigation*, **2022**, 132,	15.9	2
115	Mutations and Cardiovascular Function in Breast Cancer Survivors.. *Frontiers in Cardiovascular Medicine*, **2022**, 9, 833171	5.4	0
114	Detoxifying chemotherapy with genetics-guided stem cell modeling: A personalized affair. *Cell Stem Cell*, **2021**, 28, 2039-2040	18	
113	Active learning-based STEM education for in-person and online learning. *Cell*, **2021**, 184, 1409-1414	56.2	4
112	Chronobiology of Natriuretic Peptides and Blood Pressure in Lean and Obese Individuals. *Journal of the American College of Cardiology*, **2021**, 77, 2291-2303	15.1	4
111	In vivo CRISPR base editing of PCSK9 durably lowers cholesterol in primates. *Nature*, **2021**, 593, 429-434	50.4	96
110	Pathogenic LMNA variants disrupt cardiac lamina-chromatin interactions and de-repress alternative fate genes. *Cell Stem Cell*, **2021**, 28, 938-954.e9	18	23
109	Treating Coronary Artery Disease: Beyond Statins, Ezetimibe, and PCSK9 Inhibition. *Annual Review of Medicine*, **2021**, 72, 447-458	17.4	3
108	Genome editing for cellular disease modeling **2021**, 145-167		
107	Assessing for off-target mutagenesis **2021**, 81-100		0
106	Base editing **2021**, 101-121		
105	Therapeutic genome editing **2021**, 193-211		
104	In utero adenine base editing corrects multi-organ pathology in a lethal lysosomal storage disease. *Nature Communications*, **2021**, 12, 4291	17.4	5
103	CRISPR Hits Home in a First-in-Human Study. *CRISPR Journal*, **2021**, 4, 460-461	2.5	0
102	Genome editing for functional experiments and screens **2021**, 169-191		

101	Therapeutic application of genome editing in dyslipidemia.. *Current Opinion in Lipidology*, **2021**, 33,	4.4	1
100	EDEM3 Modulates Plasma Triglyceride Level through Its Regulation of LRP1 Expression. *IScience*, **2020**, 23, 100973	6.1	4
99	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	5.2	18
98	Correcting tyrosinaemia via a point mutation. *Nature Biomedical Engineering*, **2020**, 4, 14-15	19	
97	Genetic Testing for Inherited Cardiovascular Diseases: A Scientific Statement From the American Heart Association. *Circulation Genomic and Precision Medicine*, **2020**, 13, e000067	5.2	59
96	Self-Organizing Human Induced Pluripotent Stem Cell Hepatocyte 3D Organoids Inform the Biology of the Pleiotropic Gene. *Hepatology Communications*, **2020**, 4, 1316-1331	6	5
95	Base editing: a brief review and a practical example. *Journal of Biomedical Research*, **2020**, 35, 107-114	1.5	
94	Challenges and advances of CRISPR-Cas9 genome editing in therapeutics. *Cardiovascular Research*, **2019**, 115, e12-e14	9.9	3
93	From Hypertrophy to Heart Failure: What Is New in Genetic Cardiomyopathies. *Current Heart Failure Reports*, **2019**, 16, 157-167	2.8	7
92	Cardioprotective Effects of MTSS1 Enhancer Variants. *Circulation*, **2019**, 139, 2073-2076	16.7	2
91	In utero gene editing for monogenic lung disease. *Science Translational Medicine*, **2019**, 11,	17.5	51
90	Genetics of Common, Complex Coronary Artery Disease. *Cell*, **2019**, 177, 132-145	56.2	84
89	The clinical application of gene editing: ethical and social issues. *Personalized Medicine*, **2019**, 16, 337-350	2.2	15
88	Race, Natriuretic Peptides, and High-Carbohydrate Challenge: A Clinical Trial. *Circulation Research*, **2019**, 125, 957-968	15.7	21
87	Angiopoietin-Like 3: From Discovery to Therapeutic Gene Editing. *JACC Basic To Translational Science*, **2019**, 4, 755-762	8.7	17
86	Investigation of a dilated cardiomyopathy-associated variant in BAG3 using genome-edited iPSC-derived cardiomyocytes. *JCI Insight*, **2019**, 4,	9.9	20
85	Why Human Embryo Editing Should Be Banned. *CRISPR Journal*, **2019**, 2, 356-358	2.5	2
84	Reduced Blood Lipid Levels With In Vivo CRISPR-Cas9 Base Editing of ANGPTL3. *Circulation*, **2018**, 137, 975-977	16.7	68

83	Functional Assays to Screen and Dissect Genomic Hits: Doubling Down on the National Investment in Genomic Research. *Circulation Genomic and Precision Medicine*, **2018**, 11, e002178	5.2	16
82	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	36.3	82
81	From Genotype to Phenotype. *Circulation Genomic and Precision Medicine*, **2018**, 11,	5.2	11
80	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	5.2	95
79	Stem cell modeling of lipid genetics. *Current Opinion in Lipidology*, **2018**, 29, 151-155	4.4	1
78	Turning up the Heat with Therapeutic Epigenome Editing. *Cell Stem Cell*, **2018**, 22, 10-11	18	8
77	Role of angiopoietin-like 3 (ANGPTL3) in regulating plasma level of low-density lipoprotein cholesterol. *Atherosclerosis*, **2018**, 268, 196-206	3.1	52
76	CRISPR-Cas9 Genome Editing for Treatment of Atherogenic Dyslipidemia. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2018**, 38, 12-18	9.4	13
75	Genetic and Chemical Screenings Identify HDAC3 as a Key Regulator in Hepatic Differentiation of Human Pluripotent Stem Cells. *Stem Cell Reports*, **2018**, 11, 22-31	8	20
74	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,	5.2	4
73	Interrogation of the Atherosclerosis-Associated (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	9.4	23
72	Functional Annotation of TNNT2 Variants of Uncertain Significance With Genome-Edited Cardiomyocytes. *Circulation*, **2018**, 138, 2852-2854	16.7	23
71	In utero CRISPR-mediated therapeutic editing of metabolic genes. *Nature Medicine*, **2018**, 24, 1513-1518	50.5	112
70	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	5.2	7
69	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	5.2	19
68	Novel tricyclic glycal-based inducers that reprogram LDL metabolism in hepatic cells. *MedChemComm*, **2018**, 9, 1831-1842	5	3
67	Genome Editing for the Study of Cardiovascular Diseases. *Current Cardiology Reports*, **2017**, 19, 22	4.2	17
66	Treatment of Dyslipidemia Using CRISPR/Cas9 Genome Editing. *Current Atherosclerosis Reports*, **2017**, 19, 32	6	6

65	The Hope and Hype of CRISPR-Cas9 Genome Editing: A Review. *JAMA Cardiology*, **2017**, 2, 914-919	16.2	30
64	NLRP2 is a suppressor of NF-B signaling and HLA-C expression in human trophoblasts. *Biology of Reproduction*, **2017**, 96, 831-842	3.9	31
63	ANGPTL3 Deficiency and Protection Against Coronary Artery Disease. *Journal of the American College of Cardiology*, **2017**, 69, 2054-2063	15.1	226
62	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	18	102
61	Induced Pluripotent Stem Cell Differentiation Enables Functional Validation of GWAS Variants in Metabolic Disease. *Cell Stem Cell*, **2017**, 20, 547-557.e7	18	86
60	ESRP1 Mutations Cause Hearing Loss due to Defects in Alternative Splicing that Disrupt Cochlear Development. *Developmental Cell*, **2017**, 43, 318-331.e5	10.2	26
59	Exome-wide association study of plasma lipids in >300,000 individuals. *Nature Genetics*, **2017**, 49, 1758-1766	36.9	310
58	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	9.4	128
57	Human Germline Genome Editing. *American Journal of Human Genetics*, **2017**, 101, 167-176	11	105
56	Genome Editing: The Recent History and Perspective in Cardiovascular Diseases. *Journal of the American College of Cardiology*, **2017**, 70, 2808-2821	15.1	14
55	Cardiovascular endocrinology: Is ANGPTL3 the next PCSK9?. *Nature Reviews Endocrinology*, **2017**, 13, 503-504	15.2	14
54	Genome editing in cardiovascular diseases. *Nature Reviews Cardiology*, **2017**, 14, 11-20	14.8	57
53	Targeted Application of Human Genetic Variation Can Improve Red Blood Cell Production from Stem Cells. *Cell Stem Cell*, **2016**, 18, 73-78	18	57
52	Circular non-coding RNA ANRIL modulates ribosomal RNA maturation and atherosclerosis in humans. *Nature Communications*, **2016**, 7, 12429	17.4	619
51	Genome engineering tools for building cellular models of disease. *FEBS Journal*, **2016**, 283, 3222-31	5.7	21
50	Transcriptome-Wide Analysis Reveals Modulation of Human Macrophage Inflammatory Phenotype Through Alternative Splicing. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2016**, 36, 1434-47	9.4	30
49	Genome-Edited Human Pluripotent Stem Cell-Derived Macrophages as a Model of Reverse Cholesterol Transport--Brief Report. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2016**, 36, 15-8	9.4	27
48	Surprises From Genetic Analyses of Lipid Risk Factors for Atherosclerosis. *Circulation Research*, **2016**, 118, 579-85	15.7	98

47	A dual AAV system enables the Cas9-mediated correction of a metabolic liver disease in newborn mice. *Nature Biotechnology*, **2016**, 34, 334-8	44.5	360
46	CRISPR-Cas9 Targeting of PCSK9 in Human Hepatocytes In Vivo-Brief Report. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2016**, 36, 783-6	9.4	85
45	Rapid generation of novel models of RAG1 deficiency by CRISPR/Cas9-induced mutagenesis in murine zygotes. *Oncotarget*, **2016**, 7, 12962-74	3.3	8
44	Asialoglycoprotein receptor 1 is a specific cell-surface marker for isolating hepatocytes derived from human pluripotent stem cells. *Development (Cambridge)*, **2016**, 143, 1475-81	6.6	36
43	Enhancing Literacy in Cardiovascular Genetics: A Scientific Statement From the American Heart Association. *Circulation: Cardiovascular Genetics*, **2016**, 9, 448-467		37
42	Improving Genomic Literacy Among Cardiovascular Practitioners via a Flipped-Classroom Workshop at a National Meeting. *Circulation: Cardiovascular Genetics*, **2016**, 9, 287-90		7
41	Myocardial Infarction-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	9.4	62
40	Modelling kidney disease with CRISPR-mutant kidney organoids derived from human pluripotent epiblast spheroids. *Nature Communications*, **2015**, 6, 8715	17.4	410
39	Novel Genome-Editing Tools to Model and Correct Primary Immunodeficiencies. *Frontiers in Immunology*, **2015**, 6, 250	8.4	27
38	Modulators of hepatic lipoprotein metabolism identified in a search for small-molecule inducers of tribbles pseudokinase 1 expression. *PLoS ONE*, **2015**, 10, e0120295	3.7	21
37	Basic concepts and potential applications of genetics and genomics for cardiovascular and stroke clinicians: a scientific statement from the American Heart Association. *Circulation: Cardiovascular Genetics*, **2015**, 8, 216-42		33
36	Personalized genomes and cardiovascular disease. *Cold Spring Harbor Perspectives in Medicine*, **2014** , 5, a014068	5.4	5
35	Efficient ablation of genes in human hematopoietic stem and effector cells using CRISPR/Cas9. *Cell Stem Cell*, **2014**, 15, 643-52	18	324
34	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	18	394
33	Permanent alteration of PCSK9 with in vivo CRISPR-Cas9 genome editing. *Circulation Research*, **2014**, 115, 488-92	15.7	345
32	Expanding the genetic editing tool kit: ZFNs, TALENs, and CRISPR-Cas9. *Journal of Clinical Investigation*, **2014**, 124, 4154-61	15.9	252
31	A TALEN genome-editing system for generating human stem cell-based disease models. *Cell Stem Cell*, **2013**, 12, 238-51	18	407
30	Enhanced efficiency of human pluripotent stem cell genome editing through replacing TALENs with CRISPRs. *Cell Stem Cell*, **2013**, 12, 393-4	18	391

29	Genome editing of human pluripotent stem cells to generate human cellular disease models. *DMM Disease Models and Mechanisms*, **2013**, 6, 896-904	4.1	94
28	Identification of a growth factor that rejuvenates the heart. *Circulation: Cardiovascular Genetics*, **2013**, 6, 435-6		
27	Enduring mystery of the chromosome 9p21.3 locus. *Circulation: Cardiovascular Genetics*, **2013**, 6, 224-5		6
26	Plasma HDL cholesterol and risk of myocardial infarction: a mendelian randomisation study. *Lancet, The*, **2012**, 380, 572-80	40	1523
25	Transforming growth factor β mutations and familial thoracic aortic aneurysms. *Circulation: Cardiovascular Genetics*, **2012**, 5, 593-4		1
24	Induction of cardiomyocytes from cardiac fibroblasts. *Circulation: Cardiovascular Genetics*, **2012**, 5, 481-2		
23	Exome sequencing to identify novel genes in hypertension. *Circulation: Cardiovascular Genetics*, **2012**, 5, 267-8		
22	Functional evaluation of genetic variation in complex human traits. *Human Molecular Genetics*, **2012** , 21, R18-23	5.6	9
21	Cardiovascular pharmacogenomics: current status and future directions-report of a national heart, lung, and blood institute working group. *Journal of the American Heart Association*, **2012**, 1, e000554	6	9
20	Hepatic sortilin regulates both apolipoprotein B secretion and LDL catabolism. *Journal of Clinical Investigation*, **2012**, 122, 2807-16	15.9	151
19	Large-scale association analysis identifies 13 new susceptibility loci for coronary artery disease. *Nature Genetics*, **2011**, 43, 333-8	36.3	1394
18	Current role of pharmacogenomics in cardiovascular medicine. *Current Treatment Options in Cardiovascular Medicine*, **2011**, 13, 302-12	2.1	1
17	Regulatory elements in noncoding DNA in the chromosome 9p21 locus. *Circulation: Cardiovascular Genetics*, **2011**, 4, 330-1		3
16	Lack of association of KIF6 genotype with vascular disease and statin response. *Circulation: Cardiovascular Genetics*, **2011**, 4, 467-8		2
15	From noncoding variant to phenotype via SORT1 at the 1p13 cholesterol locus. *Nature*, **2010**, 466, 714-9	50.4	820
14	Biological, clinical and population relevance of 95 loci for blood lipids. *Nature*, **2010**, 466, 707-13	50.4	2742
13	Association of single nucleotide polymorphisms on chromosome 9p21.3 with platelet reactivity: a potential mechanism for increased vascular disease. *Circulation: Cardiovascular Genetics*, **2010**, 3, 445-53		48
12	Stem cell models of cardiac development and disease. *Annual Review of Cell and Developmental Biology*, **2010**, 26, 667-87	12.6	53

11	Exome sequencing, ANGPTL3 mutations, and familial combined hypolipidemia. *New England Journal of Medicine*, **2010**, 363, 2220-7	59.2	485
10	Genetics of coronary artery disease. *Annual Review of Genomics and Human Genetics*, **2010**, 11, 91-108	9.7	67
9	Atherogenic dyslipidemia: cardiovascular risk and dietary intervention. *Lipids*, **2010**, 45, 907-14	1.6	182
8	Ion mobility analysis of lipoprotein subfractions identifies three independent axes of cardiovascular risk. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2009**, 29, 1975-80	9.4	113
7	Paraneoplastic opsoclonus-myoclonus ataxia associated with non-small-cell lung carcinoma. *Journal of Neuro-Oncology*, **2008**, 90, 213-6	4.8	22
6	A synergistic relationship of elevated low-density lipoprotein cholesterol levels and systolic blood pressure with coronary artery calcification. *Atherosclerosis*, **2008**, 200, 368-73	3.1	0
5	The use of high-sensitivity assays for C-reactive protein in clinical practice. *Nature Clinical Practice Cardiovascular Medicine*, **2008**, 5, 621-35		95
4	HapMap and mapping genes for cardiovascular disease. *Circulation: Cardiovascular Genetics*, **2008**, 1, 66-71		12
3	Lipid nanoparticles incorporating a GalNAc ligand enable in vivo liver ANGPTL3 editing in wild-type and somatic LDLR knockout non-human primates		1
2	High-Throughput Screening and CRISPR-Cas9 Modeling of Causal Lipid-Associated Expression Quantitative Trait Locus Variants		3
1	Global-scale CRISPR gene editor specificity profiling by ONE-seq identifies population-specific, variant off-target effects		2