Mingyu Liang

List of Publications by Year
in descending order

132 papers	5,176 citations	71102 41 h-index	95266 68 g-index
136 all docs	136 docs citations	136 times ranked	6581 citing authors

#	Article	IF	Citations
1	The miR-29 family: genomics, cell biology, and relevance to renal and cardiovascular injury. Physiological Genomics, 2012, 44, 237-244.	2.3	439
2	Renal Medullary MicroRNAs in Dahl Salt-Sensitive Rats. Hypertension, 2010, 55, 974-982.	2.7	218
3	MicroRNAâ€"target pairs in the rat kidney identified by microRNA microarray, proteomic, and bioinformatic analysis. Genome Research, 2008, 18, 404-411.	5.5	211
4	NADPH Oxidase in the Renal Medulla Causes Oxidative Stress and Contributes to Salt-Sensitive Hypertension in Dahl S Rats. Hypertension, 2006, 47, 692-698.	2.7	167
5	Delayed ischemic preconditioning contributes to renal protection by upregulation of miR-21. Kidney International, 2012, 82, 1167-1175.	5.2	146
6	Increased Expression of NAD(P)H Oxidase Subunit p67phox in the Renal Medulla Contributes to Excess Oxidative Stress and Salt-Sensitive Hypertension. Cell Metabolism, 2012, 15, 201-208.	16.2	131
7	MicroRNA-target pairs in human renal epithelial cells treated with transforming growth factor Î²1: a novel role of miR-382. Nucleic Acids Research, 2010, 38, 8338-8347.	14.5	112
8	miR-29c is downregulated in renal interstitial fibrosis in humans and rats and restored by HIF-Î± activation. American Journal of Physiology - Renal Physiology, 2013, 304, F1274-F1282.	2.7	109
9	MicroRNA-687 Induced by Hypoxia-Inducible Factor-1 Targets Phosphatase and Tensin Homolog in Renal Ischemia-Reperfusion Injury. Journal of the American Society of Nephrology: JASN, 2015, 26, 1588-1596.	6.1	96
10	Tissue-Specific MicroRNA Expression Patterns in Four Types of Kidney Disease. Journal of the American Society of Nephrology: JASN, 2017, 28, 2985-2992.	6.1	93
11	Report of the National Heart, Lung, and Blood Institute Working Group on Epigenetics and Hypertension. Hypertension, 2012, 59, 899-905.	2.7	91
12	miR-21 in ischemia/reperfusion injury: a double-edged sword?. Physiological Genomics, 2014, 46, 789-797.	2.3	90
13	MicroRNA: a new frontier in kidney and blood pressure research. American Journal of Physiology - Renal Physiology, 2009, 297, F553-F558.	2.7	89
14	Endogenous MicroRNAs in Human Microvascular Endothelial Cells Regulate mRNAs Encoded by Hypertension-Related Genes. Hypertension, 2015, 66, 793-799.	2.7	89
15	Production and functional roles of nitric oxide in the proximal tubule. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2000, 278, R1117-R1124.	1.8	88
16	Artificial intelligence, physiological genomics, and precision medicine. Physiological Genomics, 2018, 50, 237-243.	2.3	86
17	MicroRNA-668 represses MTP18 to preserve mitochondrial dynamics in ischemic acute kidney injury. Journal of Clinical Investigation, 2018, 128, 5448-5464.	8.2	85
18	Reconstruction and analysis of correlation networks based on GCâ€"MS metabolomics data for young hypertensive men. Analytica Chimica Acta, 2015, 854, 95-105.	5.4	76

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19	MicroRNA-489 Induction by Hypoxiaâ€“Inducible Factorâ€“1 Protects against Ischemic Kidney Injury. Journal of the American Society of Nephrology: JASN, 2016, 27, 2784-2796.	6.1	75
20	miRâ€29 contributes to normal endothelial function and can restore it in cardiometabolic disorders. EMBO Molecular Medicine, 2018, 10, .	6.9	72
21	MiR-382 targeting of kallikrein 5 contributes to renal inner medullary interstitial fibrosis. Physiological Genomics, 2012, 44, 259-267.	2.3	71
22	MicroRNAs contribute to the maintenance of cell-type-specific physiological characteristics: miR-192 targets Na+/K+-ATPase Î²1. Nucleic Acids Research, 2013, 41, 1273-1283.	14.5	69
23	MicroRNA-21 regulates peroxisome proliferatorâ€“activated receptor alpha, a molecular mechanism of cardiac pathology in Cardiorenal Syndrome Type 4. Kidney International, 2018, 93, 375-389.	5.2	68
24	Antithrombin III/SerpinC1 insufficiency exacerbates renal ischemia/reperfusion injury. Kidney International, 2015, 88, 796-803.	5.2	67
25	Epigenetic Mechanisms and Hypertension. Hypertension, 2018, 72, 1244-1254.	2.7	66
26	Epigenomics of Hypertension. Seminars in Nephrology, 2013, 33, 392-399.	1.6	63
27	Base-Resolution Maps of 5-Methylcytosine and 5-Hydroxymethylcytosine in Dahl S Rats. Hypertension, 2014, 63, 827-838.	2.7	63
28	MicroRNA-21 Mediates Isoflurane-induced Cardioprotection against Ischemiaâ€“Reperfusion Injury <i>via</i> Akt/Nitric Oxide Synthase/Mitochondrial Permeability Transition Pore Pathway. Anesthesiology, 2015, 123, 786-798.	2.5	63
29	Malate and Aspartate Increase L-Arginine and Nitric Oxide and Attenuate Hypertension. Cell Reports, 2017, 19, 1631-1639.	6.4	62
30	Renal metabolism and hypertension. Nature Communications, 2021, 12, 963.	12.8	60
31	Novel Role of Fumarate Metabolism in Dahl-Salt Sensitive Hypertension. Hypertension, 2009, 54, 255-260.	2.7	59
32	Insights into Dahl salt-sensitive hypertension revealed by temporal patterns of renal medullary gene expression. Physiological Genomics, 2003, 12, 229-237.	2.3	58
33	Maternal Diet During Gestation and Lactation Modifies the Severity of Salt-Induced Hypertension and Renal Injury in Dahl Salt-Sensitive Rats. Hypertension, 2015, 65, 447-455.	2.7	58
34	Ushering Hypertension Into a New Era of Precision Medicine. JAMA - Journal of the American Medical Association, 2016, 315, 343.	7.4	58
35	Renal Regional Proteomes in Young Dahl Salt-Sensitive Rats. Hypertension, 2008, 51, 899-904.	2.7	55
36	miRNA551b-3p Activates an Oncostatin Signaling Module for the Progression of Triple-Negative Breast Cancer. Cell Reports, 2019, 29, 4389-4406.e10.	6.4	55

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37	<i>SerpinC1</i>/Antithrombin III in kidney-related diseases. Clinical Science, 2017, 131, 823-831.	4.3	51
38	Endogenous miR-204 Protects the Kidney against Chronic Injury in Hypertension and Diabetes. Journal of the American Society of Nephrology: JASN, 2020, 31, 1539-1554.	6.1	50
39	Thiol-Related Genes in Diabetic Complications. Arteriosclerosis, Thrombosis, and Vascular Biology, 2007, 27, 77-83.	2.4	47
40	Antithrombin III Protects Against Contrast-Induced Nephropathy. EBioMedicine, 2017, 17, 101-107.	6.1	47
41	Renal medullary genes in salt-sensitive hypertension: a chromosomal substitution and cDNA microarray study. Physiological Genomics, 2002, 8, 139-149.	2.3	46
42	Molecular networks in Dahl salt-sensitive hypertension based on transcriptome analysis of a panel of consomic rats. Physiological Genomics, 2008, 34, 54-64.	2.3	45
43	Mitochondrial proteomic analysis reveals deficiencies in oxygen utilization in medullary thick ascending limb of Henle in the Dahl salt-sensitive rat. Physiological Genomics, 2012, 44, 829-842.	2.3	45
44	MiR-192-5p in the Kidney Protects Against the Development of Hypertension. Hypertension, 2019, 73, 399-406.	2.7	45
45	Limb ischemic preconditioning protects against contrast-induced acute kidney injury in rats via phosphorylation of GSK-3Î². Free Radical Biology and Medicine, 2015, 81, 170-182.	2.9	43
46	MicroRNA-214-3p in the Kidney Contributes to the Development of Hypertension. Journal of the American Society of Nephrology: JASN, 2018, 29, 2518-2528.	6.1	43
47	Characteristics of Long Non-coding RNAs in the Brown Norway Rat and Alterations in the Dahl Salt-Sensitive Rat. Scientific Reports, 2014, 4, 7146.	3.3	41
48	High throughput gene expression profiling: a molecular approach to integrative physiology. Journal of Physiology, 2004, 554, 22-30.	2.9	40
49	MicroRNA: a new entrance to the broad paradigm of systems molecular medicine. Physiological Genomics, 2009, 38, 113-115.	2.3	39
50	OncotRF: an online resource for exploration of tRNA-derived fragments in human cancers. RNA Biology, 2020, 17, 1081-1091.	3.1	39
51	Quantitative assessment of the importance of dye switching and biological replication in cDNA microarray studies. Physiological Genomics, 2003, 14, 199-207.	2.3	38
52	Stability of global methylation profiles of whole blood and extracted DNA under different storage durations and conditions. Epigenomics, 2018, 10, 797-811.	2.1	37
53	Analysis of metabolites in plasma reveals distinct metabolic features between Dahl salt-sensitive rats and consomic SS.13BN rats. Biochemical and Biophysical Research Communications, 2014, 450, 863-869.	2.1	35
54	Pappa2 is linked to salt-sensitive hypertension in Dahl S rats. Physiological Genomics, 2016, 48, 62-72.	2.3	35

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55	Current status and strategies of long noncoding RNA research for diabetic cardiomyopathy. BMC Cardiovascular Disorders, 2018, 18, 197.	1.7	35
56	Changes in miRNA in the lung and whole blood after whole thorax irradiation in rats. Scientific Reports, 2017, 7, 44132.	3.3	31
57	Dietary Effects on Dahl Salt-Sensitive Hypertension, Renal Damage, and the T Lymphocyte Transcriptome. Hypertension, 2019, 74, 854-863.	2.7	31
58	Hypertension as a mitochondrial and metabolic disease. Kidney International, 2011, 80, 15-16.	5.2	30
59	Characteristics of microRNAs enriched in specific cell types and primary tissue types in solid organs. Physiological Genomics, 2013, 45, 1144-1156.	2.3	29
60	A comprehensive evaluation of alignment software for reduced representation bisulfite sequencing data. Bioinformatics, 2018, 34, 2715-2723.	4.1	29
61	LncRNA GAS5 promotes apoptosis as a competing endogenous RNA for miR-21 via thrombospondin 1 in ischemic AKI. Cell Death Discovery, 2020, 6, 19.	4.7	29
62	From GWAS to functional genomics-based precision medicine. Nature Reviews Nephrology, 2017, 13, 195-196.	9.6	27
63	Antithrombin <scp>III</scp> prevents progression of chronic kidney disease following experimental ischaemicâ€reperfusion injury. Journal of Cellular and Molecular Medicine, 2017, 21, 3506-3514.	3.6	27
64	Urinary Metabolites Associated with Blood Pressure on a Low- or High-Sodium Diet. Theranostics, 2018, 8, 1468-1480.	10.0	26
65	Epigenetic Modifications in T Cells. Hypertension, 2020, 75, 372-382.	2.7	26
66	Transcriptome analysis and kidney research: Toward systems biology. Kidney International, 2005, 67, 2114-2122.	5.2	25
67	Antithrombin III Attenuates AKI Following Acute Severe Pancreatitis. Shock, 2018, 49, 572-579.	2.1	25
68	Long Noncoding RNA: Genomics and Relevance to Physiology. , 2019, 9, 933-946.		25
69	miR-382 Contributes to Renal Tubulointerstitial Fibrosis by Downregulating HSPD1. Oxidative Medicine and Cellular Longevity, 2017, 2017, 1-16.	4.0	24
70	Role of DNA De Novo (De)Methylation in the Kidney in Salt-Induced Hypertension. Hypertension, 2018, 72, 1160-1171.	2.7	23
71	An integrated epigenomic-transcriptomic landscape of lung cancer reveals novel methylation driver genes of diagnostic and therapeutic relevance. Theranostics, 2021, 11, 5346-5364.	10.0	23
72	deGPS is a powerful tool for detecting differential expression in RNA-sequencing studies. BMC Genomics, 2015, 16, 455.	2.8	21

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73	Mitochondrial Dysfunction and Altered Renal Metabolism in Dahl Salt-Sensitive Rats. Kidney and Blood Pressure Research, 2017, 42, 587-597.	2.0	21
74	Ultrastructure of mitochondria and the endoplasmic reticulum in renal tubules of Dahl salt-sensitive rats. American Journal of Physiology - Renal Physiology, 2014, 306, F1190-F1197.	2.7	20
75	Physiological genomics in PG and beyond: October to December 2005. Physiological Genomics, 2006, 24, 1-3.	2.3	20
76	Characterization of biological pathways associated with a 1.37 Mbp genomic region protective of hypertension in Dahl S rats. Physiological Genomics, 2014, 46, 398-410.	2.3	19
77	Global identification and characterization of tRNA-derived RNA fragment landscapes across human cancers. NAR Cancer, 2020, 2, zcaa031.	3.1	18
78	Comparative and Functional Genomic Resource for Mechanistic Studies of Human Blood Pressureâ€"Associated Single Nucleotide Polymorphisms. Hypertension, 2020, 75, 859-868.	2.7	16
79	Elevation of fumarase attenuates hypertension and can result from a nonsynonymous sequence variation or increased expression depending on rat strain. Physiological Genomics, 2017, 49, 496-504.	2.3	15
80	miRâ€21 contributes to renal protection by targeting prolyl hydroxylase domain protein 2 in delayed ischaemic preconditioning. Nephrology, 2017, 22, 366-373.	1.6	14
81	Redox Stress Defines the Small Artery Vasculopathy of Hypertension. Circulation Research, 2017, 120, 1721-1723.	4.5	14
82	Role of miR-21 on vascular endothelial cells in the protective effect of renal delayed ischemic preconditioning. Molecular Medicine Reports, 2017, 16, 2627-2635.	2.4	14
83	Antithrombin â…¢ is a Novel Predictor for Contrast Induced Nephropathy After Coronary Angiography. Kidney and Blood Pressure Research, 2018, 43, 170-180.	2.0	14
84	Histologically resolved small RNA maps in primary focal segmental glomerulosclerosis indicate progressive changes within glomerular and tubulointerstitial regions. Kidney International, 2022, 101, 766-778.	5.2	14
85	miR-204: Molecular Regulation and Role in Cardiovascular and Renal Diseases. Hypertension, 2021, 78, 270-281.	2.7	13
86	Genome-wide epigenetic and proteomic analysis reveals altered Notch signaling in EPC dysfunction. Physiological Reports, 2015, 3, e12358.	1.7	12
87	Unique Associations of DNA Methylation Regions With 24-Hour Blood Pressure Phenotypes in Black Participants. Hypertension, 2022, 79, 761-772.	2.7	11
88	Introduction to the American Heart Associationâ€™s Hypertension Strategically Focused Research Network. Hypertension, 2016, 67, 674-680.	2.7	10
89	Transcriptomic analysis reveals inflammatory and metabolic pathways that are regulated by renal perfusion pressure in the outer medulla of Dahl-S rats. Physiological Genomics, 2018, 50, 440-447.	2.3	10
90	Insufficient fumarase contributes to hypertension by an imbalance of redox metabolism in Dahl salt-sensitive rats. Hypertension Research, 2019, 42, 1672-1682.	2.7	10

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91	Substrate-dependent differential regulation of mitochondrial bioenergetics in the heart and kidney cortex and outer medulla. Biochimica Et Biophysica Acta - Bioenergetics, 2022, 1863, 148518.	1.0	10
92	Integrative pathway knowledge bases as a tool for systems molecular medicine. Physiological Genomics, 2007, 30, 209-212.	2.3	9
93	Tissue-specific effects of targeted mutation of Mir29b1 in rats. EBioMedicine, 2018, 35, 260-269.	6.1	9
94	A comprehensive evaluation of computational tools to identify differential methylation regions using RRBS data. Genomics, 2020, 112, 4567-4576.	2.9	9
95	Dietary Sodium Restriction Results in Tissue-Specific Changes in DNA Methylation in Humans. Hypertension, 2021, 78, 434-446.	2.7	9
96	Singleâ€Cell Transcriptomic Analysis. , 2020, 10, 767-783.		8
97	Transcriptional regulation of heterogeneous nuclear ribonucleoprotein K gene expression. Biochimie, 2015, 109, 27-35.	2.6	7
98	Deletion of Tet proteins results in quantitative disparities during ESC differentiation partially attributable to alterations in gene expression. BMC Developmental Biology, 2019, 19, 16.	2.1	7
99	Improved rat genome gene prediction by integration of ESTs with RNA-Seq information. Bioinformatics, 2015, 31, 25-32.	4.1	6
100	Genome-wide map of proximity linkage to renin proximal promoter in rat. Physiological Genomics, 2018, 50, 323-331.	2.3	6
101	Fumarase Overexpression Abolishes Hypertension Attributable to endothelial NO synthase Haploinsufficiency in Dahl Salt-Sensitive Rats. Hypertension, 2019, 74, 313-322.	2.7	6
102	Twenty-four-hour versus clinic blood pressure levels as predictors of long-term cardiovascular and renal disease outcomes among African Americans. Scientific Reports, 2020, 10, 11685.	3.3	4
103	Transfer RNA Fragments in the Kidney in Hypertension. Hypertension, 2021, 77, 1627-1637.	2.7	3
104	Library Preparation for Multiplexed Reduced Representation Bisulfite Sequencing with a Universal Adapter. Methods in Molecular Biology, 2019, 2018, 177-194.	0.9	2
105	Refocusing Medical Education on Developing Medical Innovators. Academic Medicine, 2019, 94, 300-301.	1.6	2
106	Modeling Precision Cardio-Oncology: Using Human-Induced Pluripotent Stem Cells for Risk Stratification and Prevention. Current Oncology Reports, 2021, 23, 77.	4.0	2
107	Functional role of epigenetic regulation in the development of prenatal programmed hypertension. Kidney International, 2019, 96, 10-12.	5.2	1
108	miRâ€21 Knockdown Attenuates the Cardioprotective Effects of Isoflurane. FASEB Journal, 2013, 27, lb679.	0.5	1

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109	Small RNAs pack a punch in human kidney disease. Kidney International, 2020, 98, 275-277.	5.2	0
110	Team Science: American Heart Associationâ€™s Hypertension Strategically Focused Research Network Experience. Hypertension, 2021, 77, 1857-1866.	2.7	0
111	The contribution of renal medullary NADPH oxidase and mitochondrial superoxide production to saltâ€induced hypertension in Dahl S rats.. FASEB Journal, 2006, 20, .	0.5	0
112	A novel role for endogenous thioredoxin 2 in protecting cells against the injurious effect of high ambient glucose. FASEB Journal, 2006, 20, .	0.5	0
113	Renal interstitial corticosterone and 11â€dehydrocorticosterone in conscious rats. FASEB Journal, 2007, 21, A893.	0.5	0
114	Proteomic analysis of the renal medulla of Dahl saltâ€sensitive rats and consomic SSâ€13BN rats. FASEB Journal, 2007, 21, A896.	0.5	0
115	Proteomic analysis of mitochondrial protein expression in the medullary thick ascending limb of Henle (mTAL) of the Dahl saltâ€sensitive (SS) compared to saltâ€insensitive SS.13BN consomic rat. FASEB Journal, 2011, 25, 863.6.	0.5	0
116	Rank product analysis of gene expression in the medullary thick ascending limb of Henle of Dahl saltâ€sensitive rats compared to saltâ€resistant SS.13BN consomic rats during the development of saltâ€sensitive hypertension. FASEB Journal, 2011, 25, 662.3.	0.5	0
117	A novel physiological role of miRâ€192 in renal handling of fluid balance. FASEB Journal, 2012, 26, 1069.8.	0.5	0
118	The Role of MicroRNA in Anestheticâ€Induced Cardiac Preconditioning. FASEB Journal, 2012, 26, 1136.3.	0.5	0
119	Medullary raphÃ© transcriptome comparisons among inbred rat strains differing in ventilatory sensitivity to CO 2. FASEB Journal, 2013, 27, 1137.9.	0.5	0
120	The impact of maternal in utero environment on saltâ€induced hypertension in the SS rat. FASEB Journal, 2013, 27, 1182.7.	0.5	0
121	Upregulation of miRâ€21 Restores Cardioprotection under Diabetic Conditions. FASEB Journal, 2015, 29, 1040.2.	0.5	0
122	Simulation Studies Informed by RNAâ€seq Data Suggest the Utility of a Multiâ€network Bayesian Graphical Model Algorithm for the Study of Hypertension in the Dahl S Rat. FASEB Journal, 2015, 29, 814.14.	0.5	0
123	Regulation of Hypertensionâ€Related Genes by Endogenous microRNAs in Human Microvascular Endothelial Cells. FASEB Journal, 2015, 29, 811.7.	0.5	0
124	Renal Delivery of Anti-microRNA Oligonucleotides in Rats. Methods in Molecular Biology, 2017, 1527, 409-419.	0.9	0
125	Parallel genomic analysis: Hiâ€C analysis pipeline for openâ€source Torque resource manager. FASEB Journal, 2018, 32, 863.4.	0.5	0
126	Fumarase Overexpression Abolishes Hypertension Attributable to eNOS Haploinsufficiency in Dahl Saltâ€Sensitive Rats. FASEB Journal, 2019, 33, 569.7.	0.5	0

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127	MicroRNA expression profiles in a human induced pluripotent stem cellâ€derived model of diabetic cardiomyopathy. FASEB Journal, 2019, 33, 713.2.	0.5	0
128	Theodore Allen Kotchen, MD: June 27, 1938â€"July 6, 2021. Hypertension, 2021, 78, 1674-1676.	2.7	0
129	Abstract P245: Therapeutic Effects Of Mir-29b-Chitosan On Hypertension And Diabetic Complications. Hypertension, 2020, 76, .	2.7	0
130	Metabolomic Kidney Input and Output Analyses in Saltâ€Sensitive Hypertension. FASEB Journal, 2022, 36, .	0.5	0
131	Changes in Oxygen Consumption and Metabolomic Profiles in the Kidney of Spragueâ€Dawley Rat fed a Highâ€Salt Diet. FASEB Journal, 2022, 36, .	0.5	0
132	Advancing Physiology with Expanded Multi-Omics. Function, 0, , .	2.3	0