Karl A Nath

List of Publications by Year
in descending order

134 papers	9,234 citations	41344 49 h-index	39675 94 g-index
135 all docs	135 docs citations	135 times ranked	9940 citing authors

#	Article	IF	Citations
1	The spike protein of SARS-CoV-2 induces heme oxygenase-1: Pathophysiologic implications. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2022, 1868, 166322.	3.8	15
2	Publishing Pandemic-Related Content and Embarking on New Initiatives. Mayo Clinic Proceedings, 2022, 97, 18-19.	3.0	0
3	Targeting lysineâ€specific demethylase 1A inhibits renal epithelialâ€“mesenchymal transition and attenuates renal fibrosis. FASEB Journal, 2022, 36, e22122.	0.5	7
4	KLF11 deficiency enhances chemokine generation and fibrosis in murine unilateral ureteral obstruction. PLoS ONE, 2022, 17, e0266454.	2.5	5
5	Mechanisms of vascular dysfunction in the interleukin-10â€“deficient murine model of preeclampsia indicate nitric oxide dysregulation. Kidney International, 2021, 99, 646-656.	5.2	10
6	Progressing From Print to Paperless Online Publishing. Mayo Clinic Proceedings, 2021, 96, 16-17.	3.0	2
7	Expression of ACE2 in the Intact and Acutely Injured Kidney. Kidney360, 2021, 2, 1095-1106.	2.1	12
8	Epigenetic and senescence markers indicate an accelerated ageing-like state in women with preeclamptic pregnancies. EBioMedicine, 2021, 70, 103536.	6.1	20
9	Hemoglobinuria in the early post stem cell transplant period: Risk factors and association with outcomes. Kidney360, 2021, 2, 10.34067/KID.0002262021.	2.1	0
10	Pathophysiology of Chronic Kidney Disease Progression: Organ and Cellular Considerations. , 2020, , 263-278.		1
11	Comparative Effectiveness and Safety of Oral Anticoagulants Across Kidney Function in Patients With Atrial Fibrillation. Circulation: Cardiovascular Quality and Outcomes, 2020, 13, e006515.	2.2	20
12	Severe Acute Respiratory Syndrome Coronavirus 2, COVID-19, and the Renin-Angiotensin System. Hypertension, 2020, 76, 1350-1367.	2.7	46
13	Introduction. Mayo Clinic Proceedings, 2020, 95, S1-S2.	3.0	3
14	Renal Functional Decline in Sickle Cell Disease and Trait. Journal of the American Society of Nephrology: JASN, 2020, 31, 236-238.	6.1	4
15	Cyclophilins A and B oppositely regulate renal tubular epithelial cell phenotype. Journal of Molecular Cell Biology, 2020, 12, 499-514.	3.3	12
16	Identification of a Heme Activation Site on the MD-2/TLR4 Complex. Frontiers in Immunology, 2020, 11, 1370.	4.8	26
17	Introduction to Thematic Reviews on Aging and Geriatric Medicine. Mayo Clinic Proceedings, 2020, 95, 1102-1104.	3.0	4
18	The 2020 Vision for Mayo Clinic Proceedings. Mayo Clinic Proceedings, 2020, 95, 1-2.	3.0	6

#	Article	IF	Citations
19	Antithrombotic effects of heme-degrading and heme-binding proteins. American Journal of Physiology - Heart and Circulatory Physiology, 2020, 318, H671-H681.	3.2	14
20	Heme oxygenase-2 protects against ischemic acute kidney injury: influence of age and sex. American Journal of Physiology - Renal Physiology, 2019, 317, F695-F704.	2.7	9
21	Global Village, International Travel, and Risk of Communicable Disease. Mayo Clinic Proceedings, 2019, 94, 383-384.	3.0	0
22	Letter by Reddy et al Regarding Article, â€œEffects of Arteriovenous Fistula Ligation on Cardiac Structure and Function in Kidney Transplant Recipientsâ€• Circulation, 2019, 140, e804-e805.	1.6	0
23	CKD Due to a Novel Mitochondrial DNA Mutation: A Case Report. American Journal of Kidney Diseases, 2019, 73, 273-277.	1.9	6
24	Disease Progression and End-Stage Renal Disease in Diverse Glomerulopathies. Mayo Clinic Proceedings, 2018, 93, 133-135.	3.0	3
25	Differentiating Primary, Genetic, and Secondary FSGS in Adults: A Clinicopathologic Approach. Journal of the American Society of Nephrology: JASN, 2018, 29, 759-774.	6.1	186
26	Current, Emerging, and Anticipated Therapies for Sickle Cell Disease. Mayo Clinic Proceedings, 2018, 93, 1703-1706.	3.0	0
27	The murine dialysis fistula model exhibits a senescence phenotype: pathobiological mechanisms and therapeutic potential. American Journal of Physiology - Renal Physiology, 2018, 315, F1493-F1499.	2.7	26
28	Haptoglobin and hemopexin inhibit vaso-occlusion and inflammation in murine sickle cell disease: Role of heme oxygenase-1 induction. PLoS ONE, 2018, 13, e0196455.	2.5	88
29	Ccl2 deficiency protects against chronic renal injury in murine renovascular hypertension. Scientific Reports, 2018, 8, 8598.	3.3	40
30	Role of TLR4 signaling in the nephrotoxicity of heme and heme proteins. American Journal of Physiology - Renal Physiology, 2018, 314, F906-F914.	2.7	31
31	Control of Oxidative Stress and Inflammation in Sickle Cell Disease with the Nrf2 Activator Dimethyl Fumarate. Antioxidants and Redox Signaling, 2017, 26, 748-762.	5.4	95
32	Endothelin-A Receptor Antagonism Retards the Progression of Murine Sickle Cell Nephropathy. Journal of the American Society of Nephrology: JASN, 2017, 28, 2253-2255.	6.1	2
33	Long-term cardiovascular changes following creation of arteriovenous fistula in patients with end stage renal disease. European Heart Journal, 2017, 38, 1913-1923.	2.2	93
34	Vascular Access for Hemodialysis and Value-Based Purchasing for ESRD. Journal of the American Society of Nephrology: JASN, 2017, 28, 395-397.	6.1	9
35	Challenges in Developing New Therapies for Vascular Access Dysfunction. Clinical Journal of the American Society of Nephrology: CJASN, 2017, 12, 2053-2055.	4.5	8
36	A monocyteâ€TNFâ€endothelial activation axis in sickle transgenic mice: Therapeutic benefit from TNF blockade. American Journal of Hematology, 2017, 92, 1119-1130.	4.1	23

#	Article	IF	Citations
37	Renal Outcomes in Anticoagulated Patients With Atrial Fibrillation. Journal of the American College of Cardiology, 2017, 70, 2621-2632.	2.8	198
38	Cardiovascular phenotype in Smad3 deficient mice with renovascular hypertension. PLoS ONE, 2017, 12, e0187062.	2.5	6
39	Celebrating the ASN at 50. Journal of the American Society of Nephrology: JASN, 2016, 27, 1575-1576.	6.1	0
40	Predicting the Functionality and Form of a Dialysis Fistula. Journal of the American Society of Nephrology: JASN, 2016, 27, 3508-3510.	6.1	5
41	A new model of an arteriovenous fistula in chronic kidney disease in the mouse: beneficial effects of upregulated heme oxygenase-1. American Journal of Physiology - Renal Physiology, 2016, 310, F466-F476.	2.7	31
42	Blockade of CCR2 reduces macrophage influx and development of chronic renal damage in murine renovascular hypertension. American Journal of Physiology - Renal Physiology, 2016, 310, F372-F384.	2.7	34
43	Dialysis Vascular Access Intervention and the Search for Biomarkers. Journal of the American Society of Nephrology: JASN, 2016, 27, 970-972.	6.1	7
44	Mayo Clinic/Renal Pathology Society Consensus Report on Pathologic Classification, Diagnosis, and Reporting of GN. Journal of the American Society of Nephrology: JASN, 2016, 27, 1278-1287.	6.1	210
45	JASNâ€™s Silver Jubilee. Journal of the American Society of Nephrology: JASN, 2015, 26, 1477-1478.	6.1	0
46	Models of Human AKI. Journal of the American Society of Nephrology: JASN, 2015, 26, 2891-2893.	6.1	6
47	Sickle cell disease: renal manifestations and mechanisms. Nature Reviews Nephrology, 2015, 11, 161-171.	9.6	258
48	Induction and functional significance of the heme oxygenase system in pathological shear stress in vivo. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 308, H1402-H1413.	3.2	19
49	Kidney Disease Caused by Dysregulation of the Complement Alternative Pathway. Journal of the American Society of Nephrology: JASN, 2015, 26, 2917-2929.	6.1	84
50	Modulation of Mitochondrial Complex I Activity Averts Cognitive Decline in Multiple Animal Models of Familial Alzheimer's Disease. EBioMedicine, 2015, 2, 294-305.	6.1	87
51	Pathophysiology of Progression. , 2015, , 136-150.		2
52	Abstract 19760: Longitudinal Changes in Cardiac Structure and Function After Creation of Dialysis Access in People With End Stage Kidney Disease: A 15 Year Experience. Circulation, 2015, 132, .	1.6	0
53	H-ferritin ferroxidase induces cytoprotective pathways and inhibits microvascular stasis in transgenic sickle mice. Frontiers in Pharmacology, 2014, 5, 79.	3.5	32
54	Heme oxygenase-1 and acute kidney injury. Current Opinion in Nephrology and Hypertension, 2014, 23, 17-24.	2.0	108

#	Article	IF	Citations
55	Heme triggers TLR4 signaling leading to endothelial cell activation and vaso-occlusion in murine sickle cell disease. Blood, 2014, 123, 377-390.	1.4	555
56	Age sensitizes the kidney to heme protein-induced acute kidney injury. American Journal of Physiology - Renal Physiology, 2013, 304, F317-F325.	2.7	38
57	RedefiningJASN. Journal of the American Society of Nephrology: JASN, 2013, 24, 1025-1026.	6.1	1
58	Functioning of an arteriovenous fistula requires heme oxygenase-2. American Journal of Physiology - Renal Physiology, 2013, 305, F545-F552.	2.7	19
59	Vasculotoxic and Proinflammatory Effects of Plasma Heme: Cell Signaling and Cytoprotective Responses. ISRN Oxidative Medicine, 2013, 2013, 1-9.	0.8	46
60	The Modulatory Role of Heme Oxygenase on Subpressor Angiotensin II-Induced Hypertension and Renal Injury. International Journal of Hypertension, 2012, 2012, 1-7.	1.3	8
61	Increased production of superoxide anion contributes to dysfunction of the arteriovenous fistula. American Journal of Physiology - Renal Physiology, 2012, 303, F1601-F1607.	2.7	26
62	Vasculature and Kidney Complications in Sickle Cell Disease. Journal of the American Society of Nephrology: JASN, 2012, 23, 781-784.	6.1	71
63	A Vectorâ€“Host System to Fingerprint Virus Tropism. Human Gene Therapy, 2012, 23, 1116-1126.	2.7	12
64	Heme oxygenaseâ€1 regulates the immune response to influenza virus infection and vaccination in aged mice. FASEB Journal, 2012, 26, 2911-2918.	0.5	43
65	Selective Enhancement of Contractions to Î±1-adrenergic Receptor Activation in the Aorta of Mice With Sickle Cell Disease. Journal of Cardiovascular Pharmacology, 2011, 57, 263-266.	1.9	5
66	MCP-1 Contributes to Arteriovenous Fistula Failure. Journal of the American Society of Nephrology: JASN, 2011, 22, 43-48.	6.1	83
67	Outcomes of Arteriovenous Fistula Creation after the Fistula First Initiative. Clinical Journal of the American Society of Nephrology: CJASN, 2011, 6, 1996-2002.	4.5	179
68	Genetic deficiency of Smad3 protects against murine ischemic acute kidney injury. American Journal of Physiology - Renal Physiology, 2011, 301, F436-F442.	2.7	41
69	Regional and systemic hemodynamic responses following the creation of a murine arteriovenous fistula. American Journal of Physiology - Renal Physiology, 2011, 301, F845-F851.	2.7	21
70	Carbon Monoxide Therapy Modulates Hematopoietic Stem Cell Development in Heme-Oxygenase-1 Knockout Mice. Blood, 2011, 118, 1318-1318.	1.4	0
71	Hemolysis and Acute Kidney Failure. American Journal of Kidney Diseases, 2010, 56, 780-784.	1.9	124
72	Heme oxygenase activity as a determinant of the renal hemodynamic response to low-dose ANG II. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2010, 299, R1183-R1191.	1.8	8

#	Article	IF	Citations
73	Early and prominent alterations in hemodynamics, signaling, and gene expression following renal ischemia in sickle cell disease. American Journal of Physiology - Renal Physiology, 2010, 298, F892-F899.	2.7	23
74	Î²-Catenin is markedly induced in a murine model of an arteriovenous fistula: the effect of metalloproteinase inhibition. American Journal of Physiology - Renal Physiology, 2010, 299, F1270-F1277.	2.7	15
75	A promising approach for treatment of tumor-induced bone diseases: Utilizing bisphosphonate derivatives of nucleoside antimetabolites. Bone, 2010, 47, 12-22.	2.9	34
76	Characterization of a Model of an Arteriovenous Fistula in the Rat. American Journal of Pathology, 2010, 176, 2530-2541.	3.8	52
77	The role of Sirt1 in renal rejuvenation and resistance to stress. Journal of Clinical Investigation, 2010, 120, 1026-1028.	8.2	21
78	Heme, Iron, and the Kidney. Blood, 2010, 116, SCI-26-SCI-26.	1.4	0
79	Carbon Monoxide Therapy Reduces Reactive Oxygen Species Production and the Short-Term Hematopoietic Stem Cell Population In Heme-Oxygenase-1 Knockout Mice. Blood, 2010, 116, 4767-4767.	1.4	0
80	A Systems Biology Consideration of the Vasculopathy of Sickle Cell Anemia: The Need for Multi-Modality Chemo-Prophylaxis. Cardiovascular & Hematological Disorders Drug Targets, 2009, 9, 271-292.	0.7	78
81	Temporal analysis of signaling pathways activated in a murine model of two-kidney, one-clip hypertension. American Journal of Physiology - Renal Physiology, 2009, 297, F1055-F1068.	2.7	58
82	Vascular protection by tetrahydrobiopterin: progress and therapeutic prospects. Trends in Pharmacological Sciences, 2009, 30, 48-54.	8.7	128
83	Induction of Heme Oxygenase-1 and Ferritin in the Kidney in Warm Antibody Hemolytic Anemia. American Journal of Kidney Diseases, 2008, 52, 972-977.	1.9	33
84	Induction of Heme Oxygenase-1 is a Beneficial Response in a Murine Model of Venous Thrombosis. American Journal of Pathology, 2008, 173, 1882-1890.	3.8	35
85	Signaling pathways modulated by fish oil in salt-sensitive hypertension. American Journal of Physiology - Renal Physiology, 2008, 294, F1323-F1335.	2.7	21
86	Preservation of the kidney by carbon monoxide: a black swan phenomenon. Kidney International, 2008, 74, 989-991.	5.2	7
87	Renal upregulation of HO-1 reduces albumin-driven MCP-1 production: implications for chronic kidney disease. American Journal of Physiology - Renal Physiology, 2007, 292, F837-F844.	2.7	40
88	Neoangiogenesis and the presence of progenitor cells in the venous limb of an arteriovenous fistula in the rat. American Journal of Physiology - Renal Physiology, 2007, 293, F470-F475.	2.7	44
89	Physiology and Pathophysiology of Heme. Journal of the American Society of Nephrology: JASN, 2007, 18, 414-420.	6.1	288
90	Essential Role of Endothelial Nitric Oxide Synthase in Vascular Effects of Erythropoietin. Hypertension, 2007, 49, 1142-1148.	2.7	91

#	Article	IF	Citations
91	An analysis of the DOCA-salt model of hypertension in HO-1â^'/â^' mice and the Gunn rat. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H333-H342.	3.2	44
92	Renal Hemodynamic, Inflammatory, and Apoptotic Responses to Lipopolysaccharide in HO-1â^'/â^' Mice. American Journal of Pathology, 2007, 170, 1820-1830.	3.8	67
93	Amyloidogenic lambda Light Chain Renal Toxicity: Oxidative Stress Implicated.. Blood, 2007, 110, 3531-3531.	1.4	0
94	Anomalous Renal Effects of Tin Protoporphyrin in a Murine Model of Sickle Cell Disease. American Journal of Pathology, 2006, 169, 21-31.	3.8	27
95	Increased blood flow causes coordinated upregulation of arterial eNOS and biosynthesis of tetrahydrobiopterin. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 290, H786-H793.	3.2	79
96	Proteinuria as a determinant of renal expression of heme oxygenase-1: studies in models of glomerular and tubular proteinuria in the rat. American Journal of Physiology - Renal Physiology, 2006, 290, F196-F204.	2.7	24
97	Stimulatory Effect of Erythropoietin on Endothelial Repair After Vascular Injury. FASEB Journal, 2006, 20, A230.	0.5	0
98	MCP-1 is up-regulated in unstressed and stressed HO-1 knockout mice: Pathophysiologic correlates1. Kidney International, 2005, 68, 611-622.	5.2	98
99	Antigen presentation by dendritic cells in renal lymph nodes is linked to systemic and local injury to the kidney. Kidney International, 2005, 68, 1096-1108.	5.2	123
100	Functional adaptation and remodeling of pulmonary artery in flow-induced pulmonary hypertension. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 289, H2334-H2341.	3.2	40
101	Heart failure increases protein expression and enzymatic activity of heme oxygenase-1 in the lung. Cardiovascular Research, 2005, 65, 203-210.	3.8	14
102	The hyperbilirubinemic Gunn rat is resistant to the pressor effects of angiotensin II. American Journal of Physiology - Renal Physiology, 2005, 288, F552-F558.	2.7	83
103	Transgenic Sickle Mice Are Markedly Sensitive to Renal Ischemia-Reperfusion Injury. American Journal of Pathology, 2005, 166, 963-972.	3.8	108
104	Heme: a determinant of life and death in renal tubular epithelial cells. American Journal of Physiology - Renal Physiology, 2004, 286, F370-F377.	2.7	105
105	The Perfusion Paradox and Vascular Instability in Sickle Cell Disease. Microcirculation, 2004, 11, 179-193.	1.8	86
106	Increased Venous Proinflammatory Gene Expression and Intimal Hyperplasia in an Aorto-Caval Fistula Model in the Rat. American Journal of Pathology, 2003, 162, 2079-2090.	3.8	68
107	Low-Dose Angiotensin II Enhances Pressor Responses Without Causing Sustained Hypertension. Hypertension, 2003, 42, 798-801.	2.7	28
108	A major role for carbon monoxide as an endogenous hyperpolarizing factor in the gastrointestinal tract. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 8567-8570.	7.1	86

#	Article	IF	Citations
109	Heme activates the heme oxygenase-1 gene in renal epithelial cells by stabilizing Nrf2. American Journal of Physiology - Renal Physiology, 2003, 284, F743-F752.	2.7	146
110	Heme: a novel inducer of MCP-1 through HO-dependent and HO-independent mechanisms. American Journal of Physiology - Renal Physiology, 2003, 284, F546-F554.	2.7	75
111	TGF-Î²1 is an Autocrine Mediator of Renal Tubular Epithelial Cell Growth and Collagen IV Production. Experimental Biology and Medicine, 2002, 227, 171-181.	2.4	36
112	Induction of Heme Oxygenase-1 as a Protective Response Against Heme Protein-Induced Renal Injury. , 2002, , 241-250.		1
113	Oxidative Stress and Induction of Heme Oxygenase-1 in the Kidney in Sickle Cell Disease. American Journal of Pathology, 2001, 158, 893-903.	3.8	177
114	Cellular overexpression of heme oxygenase-1 up-regulates p21 and confers resistance to apoptosis. Kidney International, 2001, 60, 2181-2191.	5.2	115
115	Heme protein-induced chronic renal inflammation: Suppressive effect of induced heme oxygenase-1. Kidney International, 2001, 59, 106-117.	5.2	194
116	Acute cholestatic liver disease protects against glycerol-induced acute renal failure in the rat. Kidney International, 2001, 60, 1047-1057.	5.2	51
117	Protective Effect of Heme Oxygenase-1 Gene Transfer against Oxyhemoglobin-Induced Endothelial Dysfunction. Journal of Cerebral Blood Flow and Metabolism, 2001, 21, 1215-1222.	4.3	16
118	Increased Oxidative Stress in Experimental Renovascular Hypertension. Hypertension, 2001, 37, 541-546.	2.7	247
119	Renal response to repetitive exposure to heme proteins: Chronic injury induced by an acute insult. Kidney International, 2000, 57, 2423-2433.	5.2	114
120	Angiotensin II induces renal oxidant stress in vivo and heme oxygenase-1 in vivo and in vitro1. Kidney International, 2000, 58, 144-152.	5.2	149
121	Mechanisms underlying induction of heme oxygenase-1 by nitric oxide in renal tubular epithelial cells. American Journal of Physiology - Renal Physiology, 2000, 279, F728-F735.	2.7	37
122	Reactive oxygen species and acute renal failure. American Journal of Medicine, 2000, 109, 665-678.	1.5	360
123	The Indispensability of Heme Oxygenase-1 in Protecting against Acute Heme Protein-Induced Toxicity in Vivo. American Journal of Pathology, 2000, 156, 1527-1535.	3.8	248
124	The Involvement of Oxidative Stress in the Progression of Renal Injury. Blood Purification, 1999, 17, 58-65.	1.8	116
125	Heme oxygenase-1: a redoubtable response that limits reperfusion injury in the transplanted adipose liver. Journal of Clinical Investigation, 1999, 104, 1485-1486.	8.2	44
126	Heme oxygenase: Protective gene or Trojan horse. Nature Medicine, 1998, 4, 1364-1365.	30.7	221

#	Article	IF	Citations
127	Intracellular targets in heme protein-induced renal injury. Kidney International, 1998, 53, 100-111.	5.2	110
128	Redox regulation of renal DNA synthesis, transforming growth factor-Î²1 and collagen gene expression. Kidney International, 1998, 53, 367-381.	5.2	103
129	Renal oxidant injury and oxidant response induced by mercury. Kidney International, 1996, 50, 1032-1043.	5.2	112
130	Induction of heme oxygenase in toxic renal injury: A protective role in cisplatin nephrotoxicity in the rat. Kidney International, 1995, 48, 1298-1307.	5.2	242
131	Heme protein-mediated renal injury: A protective role for 21-aminosteroids in vitro and in vivo. Kidney International, 1995, 47, 592-602.	5.2	93
132	Effect of pyruvate on oxidant injury to isolated and cellular DNA. Kidney International, 1994, 45, 166-176.	5.2	50
133	Tubulointerstitial Changes as a Major Determinant in the Progression of Renal Damage. American Journal of Kidney Diseases, 1992, 20, 1-17.	1.9	924
134	KLF11 is a Novel Endogenous Protectant against Renal Ischemia-Reperfusion Injury. Kidney360, 0, , 10.34067/KID.0002272022.	2.1	3