Rick G Schnellmann

List of Publications by Year
in descending order

87 papers	4,050 citations	147801 31 h-index	123424 61 g-index
91 all docs	91 docs citations	91 times ranked	5293 citing authors

#	Article	IF	Citations
1	Mitochondrial energetics in the kidney. Nature Reviews Nephrology, 2017, 13, 629-646.	9.6	758
2	Persistent disruption of mitochondrial homeostasis after acute kidney injury. American Journal of Physiology - Renal Physiology, 2012, 302, F853-F864.	2.7	198
3	Isoflavones Promote Mitochondrial Biogenesis. Journal of Pharmacology and Experimental Therapeutics, 2008, 325, 536-543.	2.5	180
4	Accelerated recovery of renal mitochondrial and tubule homeostasis with SIRT1/PGC-1Î± activation following ischemiaâ€“reperfusion injury. Toxicology and Applied Pharmacology, 2013, 273, 345-354.	2.8	142
5	SRT1720 Induces Mitochondrial Biogenesis and Rescues Mitochondrial Function after Oxidant Injury in Renal Proximal Tubule Cells. Journal of Pharmacology and Experimental Therapeutics, 2010, 333, 593-601.	2.5	140
6	Mitochondrial Biogenesis as a Pharmacological Target: A New Approach to Acute and Chronic Diseases. Annual Review of Pharmacology and Toxicology, 2016, 56, 229-249.	9.4	140
7	Quantitative analysis of mitochondrial morphology and membrane potential in living cells using high-content imaging, machine learning, and morphological binning. Biochimica Et Biophysica Acta - Molecular Cell Research, 2015, 1853, 348-360.	4.1	120
8	A high-throughput respirometric assay for mitochondrial biogenesis and toxicity. Analytical Biochemistry, 2010, 404, 75-81.	2.4	119
9	Formoterol Restores Mitochondrial and Renal Function after Ischemia-Reperfusion Injury. Journal of the American Society of Nephrology: JASN, 2014, 25, 1157-1162.	6.1	111
10	PGC-1Î± over-expression promotes recovery from mitochondrial dysfunction and cell injury. Biochemical and Biophysical Research Communications, 2007, 355, 734-739.	2.1	109
11	Suppressed mitochondrial biogenesis in folic acid-induced acute kidney injury and early fibrosis. Toxicology Letters, 2014, 224, 326-332.	0.8	107
12	Urinary mitochondrial DNA is a biomarker of mitochondrial disruption and renal dysfunction in acute kidney injury. Kidney International, 2015, 88, 1336-1344.	5.2	84
13	Mitochondrial-Based Therapeutics for the Treatment of Spinal Cord Injury: Mitochondrial Biogenesis as a Potential Pharmacological Target. Journal of Pharmacology and Experimental Therapeutics, 2017, 363, 303-313.	2.5	83
14	The Î²₂-Adrenoceptor Agonist Formoterol Stimulates Mitochondrial Biogenesis. Journal of Pharmacology and Experimental Therapeutics, 2012, 342, 106-118.	2.5	82
15	cGMP-Selective Phosphodiesterase Inhibitors Stimulate Mitochondrial Biogenesis and Promote Recovery from Acute Kidney Injury. Journal of Pharmacology and Experimental Therapeutics, 2013, 347, 626-634.	2.5	79
16	Mitochondrial Homeostasis in Acute Organ Failure. Current Pathobiology Reports, 2013, 1, 169-177.	3.4	65
17	5-Hydroxytryptamine Receptor Stimulation of Mitochondrial Biogenesis. Journal of Pharmacology and Experimental Therapeutics, 2010, 332, 632-639.	2.5	63
18	Suppression of Mitochondrial Biogenesis through Toll-Like Receptor 4â€“Dependent Mitogen-Activated Protein Kinase Kinase/Extracellular Signal-Regulated Kinase Signaling in Endotoxin-Induced Acute Kidney Injury. Journal of Pharmacology and Experimental Therapeutics, 2015, 352, 346-357.	2.5	63

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19	Agonism of the 5-Hydroxytryptamine 1F Receptor Promotes Mitochondrial Biogenesis and Recovery from Acute Kidney Injury. Journal of Pharmacology and Experimental Therapeutics, 2014, 350, 257-264.	2.5	61
20	Renal cortical hexokinase and pentose phosphate pathway activation through the EGFR/Akt signaling pathway in endotoxin-induced acute kidney injury. American Journal of Physiology - Renal Physiology, 2014, 307, F435-F444.	2.7	59
21	Mitochondrial biogenesis as a therapeutic target for traumatic and neurodegenerative CNS diseases. Experimental Neurology, 2020, 329, 113309.	4.1	55
22	Toll-like receptor 4 is a key mediator of murine steatotic liver warm ischemia/reperfusion injury. Liver Transplantation, 2009, 15, 1101-1109.	2.4	52
23	Development of Therapeutics That Induce Mitochondrial Biogenesis for the Treatment of Acute and Chronic Degenerative Diseases. Journal of Medicinal Chemistry, 2016, 59, 10411-10434.	6.4	49
24	Metformin: Experimental and Clinical Evidence for a Potential Role in Emphysema Treatment. American Journal of Respiratory and Critical Care Medicine, 2021, 204, 651-666.	5.6	49
25	Extracellular Signal-Regulated Kinase Activation Mediates Mitochondrial Dysfunction and Necrosis Induced by Hydrogen Peroxide in Renal Proximal Tubular Cells. Journal of Pharmacology and Experimental Therapeutics, 2008, 325, 732-740.	2.5	48
26	Kidney glycosphingolipids are elevated early in diabetic nephropathy and mediate hypertrophy of mesangial cells. American Journal of Physiology - Renal Physiology, 2015, 309, F204-F215.	2.7	48
27	Mitochondrial biogenesis induced by the Î²2-adrenergic receptor agonist formoterol accelerates podocyte recovery from glomerular injury. Kidney International, 2019, 96, 656-673.	5.2	44
28	Pharmacological Stimulation of Mitochondrial Biogenesis Using the Food and Drug Administration-Approved Î²₂-Adrenoreceptor Agonist Formoterol for the Treatment of Spinal Cord Injury. Journal of Neurotrauma, 2019, 36, 962-972.	3.4	41
29	Delayed Mitogen-Activated Protein Kinase/Extracellular Signalâ€“Regulated Kinase Inhibition by Trametinib Attenuates Systemic Inflammatory Responses and Multiple Organ Injury in Murine Sepsis*. Critical Care Medicine, 2016, 44, e711-e720.	0.9	37
30	Proteases in renal cell death: Calpains mediate cell death produced by diverse toxicants. Renal Failure, 1998, 20, 679-686.	2.1	36
31	Inhibiting glucosylceramide synthase exacerbates cisplatin-induced acute kidney injury. Journal of Lipid Research, 2017, 58, 1439-1452.	4.2	35
32	Atomoxetine Prevents Dexamethasone-Induced Skeletal Muscle Atrophy in Mice. Journal of Pharmacology and Experimental Therapeutics, 2014, 351, 663-673.	2.5	34
33	Extracellular Signalâ€“Regulated Kinase 1/2 Regulates Mouse Kidney Injury Molecule-1 Expression Physiologically and Following Ischemic and Septic Renal Injury. Journal of Pharmacology and Experimental Therapeutics, 2017, 363, 419-427.	2.5	31
34	5â€HT_{1F} receptorâ€mediated mitochondrial biogenesis for the treatment of Parkinson's disease. British Journal of Pharmacology, 2018, 175, 348-358.	5.4	31
35	Assessment of ToxCast Phase II for Mitochondrial Liabilities Using a High-Throughput Respirometric Assay. Toxicological Sciences, 2015, 146, 226-234.	3.1	30
36	Rapid Renal Regulation of Peroxisome Proliferator-activated Receptor Î³ Coactivator-1Î± by Extracellular Signal-Regulated Kinase 1/2 in Physiological and Pathological Conditions. Journal of Biological Chemistry, 2016, 291, 26850-26859.	3.4	30

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37	5-HT1F receptor regulates mitochondrial homeostasis and its loss potentiates acute kidney injury and impairs renal recovery. American Journal of Physiology - Renal Physiology, 2018, 315, F1119-F1128.	2.7	28
38	Intereukin-10 and Kupffer cells protect steatotic mice livers from ischemia-reperfusion injury. European Cytokine Network, 2014, 25, 69-76.	2.0	27
39	Arachidonic acid release in renal proximal tubule cell injuries and death. Journal of Biochemical Toxicology, 1994, 9, 211-217.	0.4	26
40	Structural and pharmacological basis for the induction of mitochondrial biogenesis by formoterol but not clenbuterol. Scientific Reports, 2017, 7, 10578.	3.3	26
41	Proximal Tubule Î²₂-Adrenergic Receptor Mediates Formoterol-Induced Recovery of Mitochondrial and Renal Function after Ischemia-Reperfusion Injury. Journal of Pharmacology and Experimental Therapeutics, 2019, 369, 173-180.	2.5	26
42	Î²2-adrenergic receptor-mediated mitochondrial biogenesis improves skeletal muscle recovery following spinal cord injury. Experimental Neurology, 2019, 322, 113064.	4.1	24
43	Striatal Mitochondrial Disruption following Severe Traumatic Brain Injury. Journal of Neurotrauma, 2017, 34, 487-494.	3.4	23
44	5-HT2 Receptor Regulation of Mitochondrial Genes: Unexpected Pharmacological Effects of Agonists and Antagonists. Journal of Pharmacology and Experimental Therapeutics, 2016, 357, 1-9.	2.5	22
45	The 5-hydroxytryptamine receptor 1F stimulates mitochondrial biogenesis and angiogenesis in endothelial cells. Biochemical Pharmacology, 2019, 169, 113644.	4.4	22
46	Î²2-Adrenoceptor agonists in the regulation of mitochondrial biogenesis. Bioorganic and Medicinal Chemistry Letters, 2013, 23, 5376-5381.	2.2	21
47	Regulation of mitochondrial dynamics and energetics in the diabetic renal proximal tubule by the Î²₂-adrenergic receptor agonist formoterol. American Journal of Physiology - Renal Physiology, 2020, 319, F773-F779.	2.7	21
48	The in vitro metabolism and bioactivation of 1,2-dibromoethane (ethylene dibromide) by human liver. Journal of Biochemical Toxicology, 1986, 1, 1-11.	0.4	20
49	Extracellular signal-regulated kinase 1/2 regulates NAD metabolism during acute kidney injury through microRNA-34a-mediated NAMPT expression. Cellular and Molecular Life Sciences, 2020, 77, 3643-3655.	5.4	20
50	5-hydroxytryptamine 1F Receptor Agonist Induces Mitochondrial Biogenesis and Promotes Recovery from Spinal Cord Injury. Journal of Pharmacology and Experimental Therapeutics, 2020, 372, 216-223.	2.5	20
51	Identification of dual mechanisms mediating 5-hydroxytryptamine receptor 1F-induced mitochondrial biogenesis. American Journal of Physiology - Renal Physiology, 2018, 314, F260-F268.	2.7	19
52	NKT cell modulates NAFLD potentiation of metabolic oxidative stress-induced mesangial cell activation and proximal tubular toxicity. American Journal of Physiology - Renal Physiology, 2016, 310, F85-F101.	2.7	17
53	Elucidation of cGMP-dependent induction of mitochondrial biogenesis through PKG and p38 MAPK in the kidney. American Journal of Physiology - Renal Physiology, 2020, 318, F322-F328.	2.7	16
54	Formoterol, a Î²2-adrenoreceptor agonist, induces mitochondrial biogenesis and promotes cognitive recovery after traumatic brain injury. Neurobiology of Disease, 2020, 140, 104866.	4.4	16

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55	Ethanol and High Cholesterol Diet Causes Severe Steatohepatitis and Early Liver Fibrosis in Mice. PLoS ONE, 2016, 11, e0163342.	2.5	16
56	PROTEINASES IN RENAL CELL DEATH. Journal of Toxicology and Environmental Health - Part A: Current Issues, 1996, 48, 319-332.	2.3	14
57	Improvement of liver injury and survival by JNK2 and iNOS deficiency in liver transplants from cardiac death mice. Journal of Hepatology, 2015, 63, 68-74.	3.7	14
58	Disrupted mitochondrial genes and inflammation following stroke. Life Sciences, 2016, 166, 139-148.	4.3	14
59	FDA-approved 5-HT1F receptor agonist lasmiditan induces mitochondrial biogenesis and enhances locomotor and blood-spinal cord barrier recovery after spinal cord injury. Experimental Neurology, 2021, 341, 113720.	4.1	14
60	Measurement of Cell Death in Mammalian Cells. Current Protocols, 2021, 1, e210.	2.9	14
61	Repeated Administration of 2-Hydroxypropyl-Î²-Cyclodextrin (HPÎ²CD) Attenuates the Chronic Inflammatory Response to Experimental Stroke. Journal of Neuroscience, 2022, 42, 325-348.	3.6	14
62	Pentachlorobutadienyl-l-cysteine (PCBC) toxicity: The importance of mitochondrial dysfunction. Journal of Biochemical Toxicology, 1991, 6, 253-260.	0.4	13
63	Urinary ATP Synthase Subunit Î² Is a Novel Biomarker of Renal Mitochondrial Dysfunction in Acute Kidney Injury. Toxicological Sciences, 2015, 145, 108-117.	3.1	13
64	Time-to-treatment window and cross-sex potential of Î²2-adrenergic receptor-induced mitochondrial biogenesis-mediated recovery after spinal cord injury. Toxicology and Applied Pharmacology, 2021, 411, 115366.	2.8	13
65	Formoterol PLGA-PEG Nanoparticles Induce Mitochondrial Biogenesis in Renal Proximal Tubules. AAPS Journal, 2021, 23, 88.	4.4	13
66	Analgesic nephropathy in rodents. Journal of Toxicology and Environmental Health - Part B: Critical Reviews, 1998, 1, 81-90.	6.5	12
67	Identification of the Î³-Aminobutyric Acid Receptor Î²2 and Î²3 Subunits in Rat, Rabbit, and Human Kidneys. Journal of the American Society of Nephrology: JASN, 2001, 12, 1107-1113.	6.1	12
68	The effects of haloalkene cysteine conjugates on cytosolic free calcium levels in suspensions of rat renal proximal tubules. Journal of Biochemical Toxicology, 1990, 5, 187-192.	0.4	10
69	Kidney targeting of formoterol containing polymeric nanoparticles improves recovery from ischemia reperfusion-induced acute kidney injury in mice. Kidney International, 2022, 102, 1073-1089.	5.2	8
70	Using the exposome to address geneâ€“environment interactions in kidney disease. Nature Reviews Nephrology, 2020, 16, 621-622.	9.6	7
71	PDE5 inhibition rescues mitochondrial dysfunction and angiogenic responses induced by Akt3 inhibition by promotion of PRC expression. Journal of Biological Chemistry, 2020, 295, 18091-18104.	3.4	6
72	Design, Development, Physicochemical Characterization, and In Vitro Drug Release of Formoterol PEGylated PLGA Polymeric Nanoparticles. Pharmaceutics, 2022, 14, 638.	4.5	6

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73	Post-Stroke Administration of the p75 Neurotrophin Receptor Modulator, LM11A-31, Attenuates Chronic Changes in Brain Metabolism, Increases Neurotransmitter Levels, and Improves Recovery. Journal of Pharmacology and Experimental Therapeutics, 2022, 380, 126-141.	2.5	6
74	Transforming growth factor-Î²1 inhibits regeneration of renal proximal tubular cells after oxidant exposure. Journal of Biochemical Toxicology, 1996, 11, 79-84.	0.4	5
75	Increased Renal Expression of Complement Components in Patients With Liver Diseases: Nonalcoholic Steatohepatitis, Alcohol-Associated, Viral Hepatitis, and Alcohol-Viral Combination. Toxicological Sciences, 2022, 189, 62-72.	3.1	5
76	Disrupted Renal Mitochondrial Homeostasis after Liver Transplantation in Rats. PLoS ONE, 2015, 10, e0140906.	2.5	3
77	Newly Identified Chemicals Preserve Mitochondrial Capacity and Decelerate Loss of Photoreceptor Cells in Murine Retinal Degeneration Models. Journal of Ocular Pharmacology and Therapeutics, 2021, 37, 367-378.	1.4	3
78	ERK1/2 Regulates NAD⁺ Metabolism During Acute Kidney Injury Through microRNAâ€34aâ€Mediated NAMPT Expression. FASEB Journal, 2018, 32, .	0.5	1
79	The Î² 2 â€Adrenergic Receptor Agonist Formoterol Decreases Fibrotic And Mitochondrial Fusion/Fission Proteins in a Mouse Model of Diabetic Nephropathy. FASEB Journal, 2019, 33, 514.14.	0.5	1
80	Mitochondrial biogenesis for the treatment of spinal cord injury. , 2022, , 359-372.		1
81	Resistin Resets Neutrophil Function in Kidney Diseases*. Critical Care Medicine, 2016, 44, 1454-1455.	0.9	0
82	Divergent Roles for iPLA ₂ Î³ in Mitochondrial Dysfunction. FASEB Journal, 2006, 20, A922.	0.5	0
83	The Mitochondrial Biogenesis Regulator PGCâ€1alpha is Degraded by the Proteasome and Calpain Pathways in Renal Cells. FASEB Journal, 2008, 22, 605.10.	0.5	0
84	Calpain10: A new marker of kidney aging and dysfunction. FASEB Journal, 2009, 23, 604.11.	0.5	0
85	Supplementation of amphiregulin improves fatty liver regeneration after partial hepatectomy (PHX): the role of câ€Jun Nâ€terminal kinase (JNK) and extracellular signalâ€regulated kinases (ERK). FASEB Journal, 2011, 25, 998.10.	0.5	0
86	Schematic diagram of the neural protective role of IMMH004 after TGCI/R Pharmacological Induction of Mitochondrial Biogenesis using the Î² 2 â€Adrenoreceptor Agonist Formoterol for the Treatment of Spinal Cord Injury. FASEB Journal, 2018, 32, 824.8.	0.5	0
87	Mitochondrial Fission and Fusion Dynamics are Regulated by Multiple Pathways in Renal Proximal Tubule Cells Treated with High Glucose. FASEB Journal, 2022, 36, .	0.5	0