David A Antonetti

List of Publications by Year
in descending order

108 papers	12,530 citations	50276 46 h-index	48315 88 g-index
112 all docs	112 docs citations	112 times ranked	10622 citing authors

#	Article	IF	Citations
1	Diabetic Retinopathy. New England Journal of Medicine, 2012, 366, 1227-1239.	27.0	1,363
2	Neural apoptosis in the retina during experimental and human diabetes. Early onset and effect of insulin.. Journal of Clinical Investigation, 1998, 102, 783-791.	8.2	1,090
3	Diabetic Retinopathy. Diabetes, 2006, 55, 2401-2411.	0.6	673
4	Vascular Endothelial Growth Factor Induces Rapid Phosphorylation of Tight Junction Proteins Occludin and Zonula Occluden 1. Journal of Biological Chemistry, 1999, 274, 23463-23467.	3.4	575
5	Vascular permeability in experimental diabetes is associated with reduced endothelial occludin content: vascular endothelial growth factor decreases occludin in retinal endothelial cells. Penn State Retina Research Group.. Diabetes, 1998, 47, 1953-1959.	0.6	547
6	Diabetic Retinopathy. Survey of Ophthalmology, 2002, 47, S253-S262.	4.0	499
7	Regulation of tight junctions and loss of barrier function in pathophysiology. International Journal of Biochemistry and Cell Biology, 2004, 36, 1206-1237.	2.8	467
8	The Ins2^{Akita}Mouse as a Model of Early Retinal Complications in Diabetes. , 2005, 46, 2210.		442
9	TNF-Î± Signals Through PKCÎ¶/NF-ÎºB to Alter the Tight Junction Complex and Increase Retinal Endothelial Cell Permeability. Diabetes, 2010, 59, 2872-2882.	0.6	343
10	Retinal neurodegeneration: early pathology in diabetes. Clinical and Experimental Ophthalmology, 2000, 28, 3-8.	2.6	313
11	Occludin Phosphorylation and Ubiquitination Regulate Tight Junction Trafficking and Vascular Endothelial Growth Factor-induced Permeability. Journal of Biological Chemistry, 2009, 284, 21036-21046.	3.4	301
12	Insulin Rescues Retinal Neurons from Apoptosis by a Phosphatidylinositol 3-Kinase/Akt-mediated Mechanism That Reduces the Activation of Caspase-3. Journal of Biological Chemistry, 2001, 276, 32814-32821.	3.4	279
13	Hydrocortisone decreases retinal endothelial cell water and solute flux coincident with increased content and decreased phosphorylation of occludin. Journal of Neurochemistry, 2002, 80, 667-677.	3.9	257
14	VEGF Activation of Protein Kinase C Stimulates Occludin Phosphorylation and Contributes to Endothelial Permeability. , 2006, 47, 5106.		215
15	Current understanding of the molecular and cellular pathology of diabetic retinopathy. Nature Reviews Endocrinology, 2021, 17, 195-206.	9.6	213
16	Molecular Mechanisms of Vascular Permeability in Diabetic Retinopathy. Seminars in Ophthalmology, 1999, 14, 240-248.	1.6	202
17	Ocular Anti-VEGF Therapy for Diabetic Retinopathy: The Role of VEGF in the Pathogenesis of Diabetic Retinopathy. Diabetes Care, 2014, 37, 893-899.	8.6	198
18	The inner blood-retinal barrier: Cellular basis and development. Vision Research, 2017, 139, 123-137.	1.4	192

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19	Vascular permeability in ocular disease and the role of tight junctions. Angiogenesis, 2007, 10, 103-117.	7.2	166
20	Diabetes Reduces Basal Retinal Insulin Receptor Signaling: Reversal With Systemic and Local Insulin. Diabetes, 2006, 55, 1148-1156.	0.6	164
21	Diabetes Reduces Glutamate Oxidation and Glutamine Synthesis in the Retina. Experimental Eye Research, 2000, 70, 723-730.	2.6	163
22	Excessive Hexosamines Block the Neuroprotective Effect of Insulin and Induce Apoptosis in Retinal Neurons. Journal of Biological Chemistry, 2001, 276, 43748-43755.	3.4	162
23	Protein Kinase CÎ² Phosphorylates Occludin Regulating Tight Junction Trafficking in Vascular Endothelial Growth Factorâ€“Induced Permeability In Vivo. Diabetes, 2012, 61, 1573-1583.	0.6	133
24	The Blood-Retinal Barrier: Structure and Functional Significance. Methods in Molecular Biology, 2011, 686, 133-148.	0.9	131
25	Brain endothelial cell junctions after cerebral hemorrhage: Changes, mechanisms and therapeutic targets. Journal of Cerebral Blood Flow and Metabolism, 2018, 38, 1255-1275.	4.3	123
26	Alterations to the Bloodâ€“Retinal Barrier in Diabetes: Cytokines and Reactive Oxygen Species. Antioxidants and Redox Signaling, 2011, 15, 1271-1284.	5.4	114
27	Efficacy of interleukin-13 receptorâ€“targeted liposomal doxorubicin in the intracranial brain tumor model. Molecular Cancer Therapeutics, 2009, 8, 648-654.	4.1	110
28	Shear stress regulates occludin content and phosphorylation. American Journal of Physiology - Heart and Circulatory Physiology, 2001, 281, H105-H113.	3.2	106
29	A diet-induced mouse model for glutaric aciduria type I. Brain, 2006, 129, 899-910.	7.6	106
30	Minocycline prevents retinal inflammation and vascular permeability following ischemia-reperfusion injury. Journal of Neuroinflammation, 2013, 10, 149.	7.2	104
31	Glucocorticoid Regulation of Endothelial Cell Tight Junction Gene Expression: Novel Treatments for Diabetic Retinopathy. Current Eye Research, 2005, 30, 949-957.	1.5	102
32	Characterization of insulin signaling in rat retina in vivo and ex vivo. American Journal of Physiology - Endocrinology and Metabolism, 2003, 285, E763-E774.	3.5	101
33	Mapping the Blood Vessels with Paracellular Permeability in the Retinas of Diabetic Rats. , 2003, 44, 5410.		98
34	Whole genome assessment of the retinal response to diabetes reveals a progressive neurovascular inflammatory response. BMC Medical Genomics, 2008, 1, 26.	1.5	98
35	Evaluation of the role of P-glycoprotein in the uptake of paroxetine, clozapine, phenytoin and carbamazapine by bovine retinal endothelial cells. Neuropharmacology, 2005, 49, 610-617.	4.1	86
36	Moving Past Anti-VEGF: Novel Therapies for Treating Diabetic Retinopathy. International Journal of Molecular Sciences, 2016, 17, 1498.	4.1	82

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37	Glucocorticoids induce transactivation of tight junction genes occludin and claudin-5 in retinal endothelial cells via a novel cis-element. Experimental Eye Research, 2008, 86, 867-878.	2.6	81
38	Ischemiaâ€"Reperfusion Injury Induces Occludin Phosphorylation/Ubiquitination and Retinal Vascular Permeability in a VEGFR-2-Dependent Manner. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 522-531.	4.3	78
39	Insulin Promotes Rat Retinal Neuronal Cell Survival in a p70S6K-dependent Manner. Journal of Biological Chemistry, 2004, 279, 9167-9175.	3.4	74
40	Insulin Receptor Substrate Proteins Create a Link between the Tyrosine Phosphorylation Cascade and the Ca2+-ATPases in Muscle and Heart. Journal of Biological Chemistry, 1997, 272, 23696-23702.	3.4	70
41	Effects of Ischemic Preconditioning and Bevacizumab on Apoptosis and Vascular Permeability Following Retinal Ischemiaâ€"Reperfusion Injury. , 2010, 51, 5920.		70
42	â€œSmall Blood Vessels: Big Health Problems?â€ Scientific Recommendations of the National Institutes of Health Workshop. Journal of the American Heart Association, 2016, 5, .	3.7	67
43	Identification and Analysis of Occludin Phosphosites: A Combined Mass Spectrometry and Bioinformatics Approach. Journal of Proteome Research, 2009, 8, 808-817.	3.7	66
44	Pharmacologic Manipulation of Sphingosine Kinase in Retinal Endothelial Cells: Implications for Angiogenic Ocular Diseases. , 2006, 47, 5022.		65
45	The molecular structure and function of the inner blood-retinal barrier. Penn State Retina Research Group. Documenta Ophthalmologica, 1999, 97, 229-237.	2.2	64
46	Platelet-derived growth factor mediates tight junction redistribution and increases permeability in MDCK cells. Journal of Cellular Physiology, 2002, 193, 349-364.	4.1	63
47	Review Paper: New Insights into the Pathophysiology of Diabetic Retinopathy: Potential Cell-Specific Therapeutic Targets. Diabetes Technology and Therapeutics, 2000, 2, 601-608.	4.4	62
48	Novel atypical PKC inhibitors prevent vascular endothelial growth factor-induced bloodâ€"retinal barrier dysfunction. Biochemical Journal, 2012, 446, 455-467.	3.7	60
49	High Glucose Attenuates Shear-Induced Changes in Endothelial Hydraulic Conductivity by Degrading the Glycocalyx. PLoS ONE, 2013, 8, e78954.	2.5	49
50	Rad, a Novel Ras-related GTPase, Interacts with Skeletal Muscle Î²-Tropomyosin. Journal of Biological Chemistry, 1996, 271, 768-773.	3.4	48
51	A transmural pressure gradient induces mechanical and biological adaptive responses in endothelial cells. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 286, H731-H741.	3.2	48
52	Using the Past to Inform the Future: Anti-VEGF Therapy as a Road Map to Develop Novel Therapies for Diabetic Retinopathy. Diabetes, 2013, 62, 1808-1815.	0.6	48
53	The EPACâ€"Rap1 pathway prevents and reverses cytokine-induced retinal vascular permeability. Journal of Biological Chemistry, 2018, 293, 717-730.	3.4	48
54	Tight Junctions in Cell Proliferation. International Journal of Molecular Sciences, 2019, 20, 5972.	4.1	48

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55	The occludin and ZO-1 complex, defined by small angle X-ray scattering and NMR, has implications for modulating tight junction permeability. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10855-10860.	7.1	46
56	Adrenergic and serotonin receptors affect retinal superoxide generation in diabetic mice: relationship to capillary degeneration and permeability. FASEB Journal, 2015, 29, 2194-2204.	0.5	45
57	Retinylamine Benefits Early Diabetic Retinopathy in Mice. Journal of Biological Chemistry, 2015, 290, 21568-21579.	3.4	44
58	Occludin Is a Direct Target of Thyroid Transcription Factor-1 (TTF-1/NKX2â€"1). Journal of Biological Chemistry, 2012, 287, 28790-28801.	3.4	43
59	Ablation of 4E-BP1/2 Prevents Hyperglycemia-Mediated Induction of VEGF Expression in the Rodent Retina and in MÃ¼ller Cells in Culture. Diabetes, 2010, 59, 2107-2116.	0.6	41
60	Protective Effect of a GLP-1 Analog on Ischemia-Reperfusion Induced Bloodâ€"Retinal Barrier Breakdown and Inflammation. , 2016, 57, 2584.		41
61	ELOVL4-Mediated Production of Very Long-Chain Ceramides Stabilizes Tight Junctions and Prevents Diabetes-Induced Retinal Vascular Permeability. Diabetes, 2018, 67, 769-781.	0.6	41
62	Novel potential mechanisms for diabetic macular edema: Leveraging new investigational approaches. Current Diabetes Reports, 2008, 8, 263-269.	4.2	37
63	Occludin S490 Phosphorylation Regulates Vascular Endothelial Growth Factorâ€"Induced Retinal Neovascularization. American Journal of Pathology, 2016, 186, 2486-2499.	3.8	37
64	Inflammatory resolution and vascular barrier restoration after retinal ischemia reperfusion injury. Journal of Neuroinflammation, 2021, 18, 186.	7.2	36
65	Placenta Growth Factor-1 Exerts Time-Dependent Stabilization of Adherens Junctions Following VEGF-Induced Vascular Permeability. PLoS ONE, 2011, 6, e18076.	2.5	35
66	Glucocorticoid Induction of Occludin Expression and Endothelial Barrier Requires Transcription Factor p54 NONO. , 2013, 54, 4007.		34
67	Occludin Independently Regulates Permeability under Hydrostatic Pressure and Cell Division in Retinal Pigment Epithelial Cells. , 2008, 49, 2568.		33
68	Occludin Localizes to Centrosomes and Modifies Mitotic Entry*. Journal of Biological Chemistry, 2011, 286, 30847-30858.	3.4	33
69	Shear Stress Regulates HUVEC Hydraulic Conductivity by Occludin Phosphorylation. Annals of Biomedical Engineering, 2005, 33, 1536-1545.	2.5	32
70	Leucine, Glutamine, and Tyrosine Reciprocally Modulate the Translation Initiation Factors eIF4F and eIF2B in Perfused Rat Liver. Journal of Biological Chemistry, 1999, 274, 36168-36175.	3.4	29
71	Mechanism of metabolic stroke and spontaneous cerebral hemorrhage in glutaric aciduria type I. Acta Neuropathologica Communications, 2014, 2, 13.	5.2	28
72	Norrin restores blood-retinal barrier properties after vascular endothelial growth factorâ€"induced permeability. Journal of Biological Chemistry, 2020, 295, 4647-4660.	3.4	28

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73	A multistep validation process of biomarkers for preclinical drug development. Pharmacogenomics Journal, 2010, 10, 385-395.	2.0	27
74	Tight junction protein occludin regulates progenitor Self-Renewal and survival in developing cortex. ELife, 2019, 8, .	6.0	27
75	Algorithm for the Measure of Vitreous Hyperreflective Foci in Optical Coherence Tomographic Scans of Patients With Diabetic Macular Edema. JAMA Ophthalmology, 2016, 134, 15.	2.5	26
76	Targeting Neurovascular Interaction in Retinal Disorders. International Journal of Molecular Sciences, 2020, 21, 1503.	4.1	26
77	Isolation and Characterization of Retinal Endothelial Cells. , 2003, 89, 365-374.		25
78	Pathophysiology of Diabetic Retinopathy: Contribution and Limitations of Laboratory Research. Ophthalmic Research, 2019, 62, 196-202.	1.9	25
79	Organ-On-A-Chip Technologies for Advanced Bloodâ€"Retinal Barrier Models. Journal of Ocular Pharmacology and Therapeutics, 2020, 36, 30-41.	1.4	23
80	A prize catch for diabetic retinopathy. Nature Medicine, 2007, 13, 131-132.	30.7	22
81	The role of small GTPases and EPAC-Rap signaling in the regulation of the blood-brain and blood-retinal barriers. Tissue Barriers, 2017, 5, e1339768.	3.2	22
82	Occludin S471 Phosphorylation Contributes to Epithelial Monolayer Maturation. Molecular and Cellular Biology, 2016, 36, 2051-2066.	2.3	19
83	Inhibition of Atypical Protein Kinase C Reduces Inflammation-Induced Retinal Vascular Permeability. American Journal of Pathology, 2018, 188, 2392-2405.	3.8	18
84	Correlation of Retinal Structure and Visual Function Assessments in Mouse Diabetes Models. , 2021, 62, 20.		18
85	VEGF increases paracellular transport without altering the solvent-drag reflection coefficient. Microvascular Research, 2004, 68, 295-302.	2.5	17
86	Eye vessels saved by rescuing their pericyte partners. Nature Medicine, 2009, 15, 1248-1249.	30.7	15
87	A Role for Systemic Inflammation in Diabetic Retinopathy. , 2013, 54, 2384.		15
88	Synthesis and structureâ€"activity relationships of 2-amino-3-carboxy-4-phenylthiophenes as novel atypical protein kinase C inhibitors. Bioorganic and Medicinal Chemistry Letters, 2013, 23, 3034-3038.	2.2	13
89	Retinal pH and Acid Regulation During Metabolic Acidosis. Current Eye Research, 2018, 43, 902-912.	1.5	13
90	Vascular Expression of Permeability-Resistant Occludin Mutant Preserves Visual Function in Diabetes. Diabetes, 2021, 70, 1549-1560.	0.6	13

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91	A Three-Pore Model Describes Transport Properties of Bovine Retinal Endothelial Cells in Normal and Elevated Glucose. , 2011, 52, 1171.		12
92	Ruboxistaurin for Diabetic Retinopathy. Ophthalmology, 2006, 113, 2135-2136.	5.2	10
93	Phosphorylation Site Mapping of Endogenous Proteins: A Combined MS and Bioinformatics Approach. Journal of Proteome Research, 2009, 8, 798-807.	3.7	10
94	New insights for glutaric aciduria type I. Brain, 2006, 129, e55-e55.	7.6	6
95	Regulation of Adrenergic, Serotonin, and Dopamine Receptors to Inhibit Diabetic Retinopathy: Monotherapies versus Combination Therapies. Molecular Pharmacology, 2021, 100, 470-479.	2.3	6
96	The neuroscience of diabetic retinopathy. Visual Neuroscience, 2021, 38, E001.	1.0	6
97	All-<i>trans</i>-Retinaldehyde Contributes to Retinal Vascular Permeability in Ischemia Reperfusion. , 2020, 61, 8.		5
98	Cell autonomous sonic hedgehog signaling contributes to maintenance of retinal endothelial tight junctions. Experimental Eye Research, 2017, 164, 82-89.	2.6	4
99	Vascular Permeability in Diabetic Retinopathy. , 2008, , 333-352.		4
100	Blood Retinal Barrier. , 2007, , 139-166.		4
101	P-124: Novel interactions of IRS-1 in human skeletal muscle. Experimental and Clinical Endocrinology and Diabetes, 1996, 104, 145-146.	1.2	3
102	Polychromatic Angiography for the Assessment of VEGF-Induced BRB Dysfunction in the Rabbit Retina. , 2013, 54, 5550.		3
103	Synthesis and structure-activity relationships of thieno[2,3-d]pyrimidines as atypical protein kinase C inhibitors to control retinal vascular permeability and cytokine-induced edema. Bioorganic and Medicinal Chemistry, 2020, 28, 115480.	3.0	1
104	The molecular structure and function of the inner blood-retinal barrier. , 2000, , 25-33.		0
105	New Insights into the Molecular Mechanisms of Vascular Permeability in Diabetes. , 2002, , 23-33.		0
106	Phosphorylation of the Tight Junction Protein Occludin on Ser490 Regulates Barrier Function and Contributes to Growth Control. FASEB Journal, 2009, 23, 996.2.	0.5	0
107	Molecular Regulation of Endothelial Cell Tight Junctions and the Blood-Retinal Barrier. , 2012, , 123-141.		0
108	Structure and function of the retina of low-density lipoprotein receptor-related protein 5 (Lrp5)-deficient rats. Experimental Eye Research, 2022, 217, 108977.	2.6	0