

Alexander M Dizhoor

List of Publications by Year in descending order

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80
papers

4,602
citations

87723

38
h-index

102304

66
g-index

82
all docs

82
docs citations

82
times ranked

2340
citing authors

#	ARTICLE	IF	CITATIONS
1	Regulation of retinal membrane guanylyl cyclase (RetGC) by negative calcium feedback and RD3 protein. <i>Pflugers Archiv European Journal of Physiology</i> , 2021, 473, 1393-1410.	1.3	12
2	Safety and improved efficacy signals following gene therapy in childhood blindness caused by GUCY2D mutations. <i>iScience</i> , 2021, 24, 102409.	1.9	22
3	Retinal degeneration-3 protein attenuates photoreceptor degeneration in transgenic mice expressing dominant mutation of human retinal guanylyl cyclase. <i>Journal of Biological Chemistry</i> , 2021, 297, 101201.	1.6	5
4	Retinal degeneration-3 protein promotes photoreceptor survival by suppressing activation of guanylyl cyclase rather than accelerating GMP recycling. <i>Journal of Biological Chemistry</i> , 2021, 296, 100362.	1.6	6
5	Two clusters of surface-exposed amino acid residues enable high-affinity binding of retinal degeneration-3 (RD3) protein to retinal guanylyl cyclase. <i>Journal of Biological Chemistry</i> , 2020, 295, 10781-10793.	1.6	5
6	GUCY2D mutations in retinal guanylyl cyclase 1 provide biochemical reasons for dominant cone-rod dystrophy but not for stationary night blindness. <i>Journal of Biological Chemistry</i> , 2020, 295, 18301-18315.	1.6	9
7	Retinal guanylyl cyclase activation by calcium sensor proteins mediates photoreceptor degeneration in an rd3 mouse model of congenital human blindness. <i>Journal of Biological Chemistry</i> , 2019, 294, 13729-13739.	1.6	9
8	A G86R mutation in the calcium-sensor protein GCAP1 alters regulation of retinal guanylyl cyclase and causes dominant cone-rod degeneration. <i>Journal of Biological Chemistry</i> , 2019, 294, 3476-3488.	1.6	29
9	Retinal degeneration 3 (RD3) protein, a retinal guanylyl cyclase regulator, forms a monomeric and elongated four-helix bundle. <i>Journal of Biological Chemistry</i> , 2019, 294, 2318-2328.	1.6	10
10	GUCY2D Cone-rod Dystrophy-6 Is a Phototransduction Disease-Triggered by Abnormal Calcium Feedback on Retinal Membrane Guanylyl Cyclase 1. <i>Journal of Neuroscience</i> , 2018, 38, 2990-3000.	1.7	24
11	Chemical shift assignments of retinal degeneration 3 protein (RD3). <i>Biomolecular NMR Assignments</i> , 2018, 12, 167-170.	0.4	2
12	Guanylate cyclase-activating protein 2 contributes to phototransduction and light adaptation in mouse cone photoreceptors. <i>Journal of Biological Chemistry</i> , 2018, 293, 7457-7465.	1.6	16
13	Retinal guanylyl cyclase activating protein 1 forms a functional dimer. <i>PLoS ONE</i> , 2018, 13, e0193947.	1.1	23
14	GCAP1, Rab6, and HSP27: Novel Autoantibody Targets in Cancer-Associated Retinopathy and Autoimmune Retinopathy. <i>Translational Vision Science and Technology</i> , 2016, 5, 1.	1.1	12
15	Structure of Guanylyl Cyclase Activator Protein 1 (GCAP1) Mutant V77E in a Ca ²⁺ -free/Mg ²⁺ -bound Activator State. <i>Journal of Biological Chemistry</i> , 2016, 291, 4429-4441.	1.6	26
16	The R838S Mutation in Retinal Guanylyl Cyclase 1 (RetGC1) Alters Calcium Sensitivity of cGMP Synthesis in the Retina and Causes Blindness in Transgenic Mice. <i>Journal of Biological Chemistry</i> , 2016, 291, 24504-24516.	1.6	25
17	Functional Study and Mapping Sites for Interaction with the Target Enzyme in Retinal Degeneration 3 (RD3) Protein. <i>Journal of Biological Chemistry</i> , 2016, 291, 19713-19723.	1.6	27
18	Functional study of two biochemically unusual mutations in Leber congenital amaurosis expressed via adenoassociated virus vector in mouse retinas. <i>Molecular Vision</i> , 2016, 22, 1342-1351.	1.1	1

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19	Optogenetic Approaches to Restoring Vision. Annual Review of Vision Science, 2015, 1, 185-210.	2.3	39
20	Gene Therapy Fully Restores Vision to the All-Cone <i>Nrl^ΔGucy2e^Δ</i> Mouse Model of Leber Congenital Amaurosis-1. Human Gene Therapy, 2015, 26, 575-592.	1.4	38
21	Evaluating the Role of Retinal Membrane Guanylyl Cyclase 1 (RetGC1) Domains in Binding Guanylyl Cyclase-activating Proteins (GCAPs). Journal of Biological Chemistry, 2015, 290, 6913-6924.	1.6	34
22	Dimerization Domain of Retinal Membrane Guanylyl Cyclase 1 (RetGC1) Is an Essential Part of Guanylyl Cyclase-activating Protein (GCAP) Binding Interface. Journal of Biological Chemistry, 2015, 290, 19584-19596.	1.6	29
23	Structural diversity of neuronal calcium sensor proteins and insights for activation of retinal guanylyl cyclase by GCAP1. Frontiers in Molecular Neuroscience, 2014, 7, 19.	1.4	32
24	Membrane guanylyl cyclase complexes shape the photoresponses of retinal rods and cones. Frontiers in Molecular Neuroscience, 2014, 7, 45.	1.4	36
25	Identification of Target Binding Site in Photoreceptor Guanylyl Cyclase-activating Protein 1 (GCAP1). Journal of Biological Chemistry, 2014, 289, 10140-10154.	1.6	28
26	Backbone 1H, 13C, and 15N resonance assignments of guanylyl cyclase activating protein-1, GCAP1. Biomolecular NMR Assignments, 2013, 7, 39-42.	0.4	4
27	Determining consequences of retinal membrane guanylyl cyclase (RetGC1) deficiency in human Leber congenital amaurosis en route to therapy: residual cone-photoreceptor vision correlates with biochemical properties of the mutants. Human Molecular Genetics, 2013, 22, 168-183.	1.4	89
28	AAV-Mediated Gene Therapy in the Guanylate Cyclase (RetGC1/RetGC2) Double Knockout Mouse Model of Leber Congenital Amaurosis. Human Gene Therapy, 2013, 24, 189-202.	1.4	60
29	cGMP Accumulation Causes Photoreceptor Degeneration in CNG Channel Deficiency: Evidence of cGMP Cytotoxicity Independently of Enhanced CNG Channel Function. Journal of Neuroscience, 2013, 33, 14939-14948.	1.7	64
30	Structural Insights for Activation of Retinal Guanylate Cyclase by GCAP1. PLoS ONE, 2013, 8, e81822.	1.1	19
31	Retinal Guanylyl Cyclase Isozyme 1 Is the Preferential <i>In Vivo</i> Target for Constitutively Active GCAP1 Mutants Causing Congenital Degeneration of Photoreceptors. Journal of Neuroscience, 2012, 32, 7208-7217.	1.7	44
32	Calcium-Myristoyl Tug Is a New Mechanism for Intramolecular Tuning of Calcium Sensitivity and Target Enzyme Interaction for Guanylyl Cyclase-activating Protein 1. Journal of Biological Chemistry, 2012, 287, 13972-13984.	1.6	42
33	Enzymatic Relay Mechanism Stimulates Cyclic GMP Synthesis in Rod Photoresponse: Biochemical and Physiological Study in Guanylyl Cyclase Activating Protein 1 Knockout Mice. PLoS ONE, 2012, 7, e47637.	1.1	53
34	Interaction of GCAP1 with retinal guanylyl cyclase and calcium: sensitivity to fatty acylation. Frontiers in Molecular Neuroscience, 2012, 5, 19.	1.4	9
35	Ceramide Kinase-Like (CERKL) Interacts with Neuronal Calcium Sensor Proteins in the Retina in a Cation-Dependent Manner. , 2012, 53, 4565.		15
36	Retinal Degeneration 3 (RD3) Protein Inhibits Catalytic Activity of Retinal Membrane Guanylyl Cyclase (RetGC) and Its Stimulation by Activating Proteins. Biochemistry, 2011, 50, 9511-9519.	1.2	42

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37	Enzymatic Properties and Regulation of the Native Isozymes of Retinal Membrane Guanylyl Cyclase (RetGC) from Mouse Photoreceptors. <i>Biochemistry</i> , 2011, 50, 5590-5600.	1.2	83
38	Long-term RNA interference gene therapy in a dominant retinitis pigmentosa mouse model. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 18476-18481.	3.3	46
39	Activation of Retinal Guanylyl Cyclase RetGC1 by GCAP1: Stoichiometry of Binding and Effect of New LCA-Related Mutations. <i>Biochemistry</i> , 2010, 49, 709-717.	1.2	28
40	Mg ²⁺ /Ca ²⁺ cation binding cycle of guanylyl cyclase activating proteins (GCAPs): role in regulation of photoreceptor guanylyl cyclase. <i>Molecular and Cellular Biochemistry</i> , 2010, 334, 117-124.	1.4	100
41	Increased Light Exposure Alleviates One Form of Photoreceptor Degeneration Marked by Elevated Calcium in the Dark. <i>PLoS ONE</i> , 2009, 4, e8438.	1.1	5
42	Effects of Ca ²⁺ , Mg ²⁺ , and Myristoylation on Guanylyl Cyclase Activating Protein 1 Structure and Stability. <i>Biochemistry</i> , 2009, 48, 850-862.	1.2	67
43	Interaction of retinal guanylate cyclase with the $\hat{\pm}$ subunit of transducin: potential role in transducin localization. <i>Biochemical Journal</i> , 2009, 417, 803-812.	1.7	5
44	Modulation of Phosphodiesterase6 Turnoff during Background Illumination in Mouse Rod Photoreceptors. <i>Journal of Neuroscience</i> , 2008, 28, 2064-2074.	1.7	59
45	Night Blindness and the Mechanism of Constitutive Signaling of Mutant G90D Rhodopsin. <i>Journal of Neuroscience</i> , 2008, 28, 11662-11672.	1.7	40
46	Binding of Guanylyl Cyclase Activating Protein 1 (GCAP1) to Retinal Guanylyl Cyclase (RetGC1). <i>Journal of Biological Chemistry</i> , 2008, 283, 21747-21757.	1.6	43
47	A Role for GCAP2 in Regulating the Photoresponse. <i>Journal of Biological Chemistry</i> , 2008, 283, 29135-29143.	1.6	74
48	Constitutive Excitation by Gly90Asp Rhodopsin Rescues Rods from Degeneration Caused by Elevated Production of cGMP in the Dark. <i>Journal of Neuroscience</i> , 2007, 27, 8805-8815.	1.7	58
49	Activation and Inhibition of Photoreceptor Guanylyl Cyclase by Guanylyl Cyclase Activating Protein 1 (GCAP-1). <i>Journal of Biological Chemistry</i> , 2007, 282, 21645-21652.	1.6	60
50	Ectopic Expression of a Microbial-Type Rhodopsin Restores Visual Responses in Mice with Photoreceptor Degeneration. <i>Neuron</i> , 2006, 50, 23-33.	3.8	695
51	Ca ²⁺ and Mg ²⁺ Binding Properties of GCAP-1. <i>Journal of Biological Chemistry</i> , 2006, 281, 23830-23841.	1.6	101
52	Effects of Low AIPL1 Expression on Phototransduction in Rods. , 2006, 47, 2185.		19
53	The Y99C Mutation in Guanylyl Cyclase-Activating Protein 1 Increases Intracellular Ca ²⁺ and Causes Photoreceptor Degeneration in Transgenic Mice. <i>Journal of Neuroscience</i> , 2004, 24, 6078-6085.	1.7	95
54	Ca ²⁺ -dependent Conformational Changes in Guanylyl Cyclase-activating Protein 2 (GCAP-2) Revealed by Site-specific Phosphorylation and Partial Proteolysis. <i>Journal of Biological Chemistry</i> , 2004, 279, 50342-50349.	1.6	18

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55	Guanylyl Cyclase-activating Proteins (GCAPs) Are Ca ²⁺ /Mg ²⁺ Sensors. <i>Journal of Biological Chemistry</i> , 2004, 279, 16903-16906.	1.6	90
56	Factors that Determine Ca ²⁺ Sensitivity of Photoreceptor Guanylyl Cyclase. Kinetic Analysis of the Interaction between the Ca ²⁺ -Bound and the Ca ²⁺ -Free Guanylyl Cyclase Activating Proteins (GCAPs) and Recombinant Photoreceptor Guanylyl Cyclase 1 (RetGC-1). <i>Biochemistry</i> , 2004, 43, 13796-13804.	1.2	48
57	Title is missing!. <i>Molecular and Cellular Biochemistry</i> , 2002, 230, 139-147.	1.4	46
58	Site-Directed and Natural Mutations in Studying Functional Domains in Guanylyl Cyclase Activating Proteins (GCAPs). <i>Advances in Experimental Medicine and Biology</i> , 2002, 514, 291-301.	0.8	5
59	Factors that affect regulation of cGMP synthesis in vertebrate photoreceptors and their genetic link to human retinal degeneration. , 2002, , 139-147.		0
60	Factors that affect regulation of cGMP synthesis in vertebrate photoreceptors and their genetic link to human retinal degeneration. <i>Molecular and Cellular Biochemistry</i> , 2002, 230, 139-47.	1.4	27
61	Instead of Binding Calcium, One of the EF-hand Structures in Guanylyl Cyclase Activating Protein-2 Is Required for Targeting Photoreceptor Guanylyl Cyclase. <i>Journal of Biological Chemistry</i> , 2001, 276, 48143-48148.	1.6	78
62	[46] Heterologous expression and assays for photoreceptor guanylyl cyclases and guanylyl cyclase activating proteins. <i>Methods in Enzymology</i> , 2000, 315, 708-717.	0.4	12
63	Regulation of cGMP synthesis in photoreceptors: role in signal transduction and congenital diseases of the retina. <i>Cellular Signalling</i> , 2000, 12, 711-719.	1.7	65
64	Dimerization of Guanylyl Cyclase-activating Protein and a Mechanism of Photoreceptor Guanylyl Cyclase Activation. <i>Journal of Biological Chemistry</i> , 1999, 274, 25583-25587.	1.6	86
65	Activation of Retinal Guanylyl Cyclase-1 by Ca ²⁺ -binding Proteins Involves Its Dimerization. <i>Journal of Biological Chemistry</i> , 1999, 274, 15547-15555.	1.6	66
66	Three-dimensional Structure of Guanylyl Cyclase Activating Protein-2, a Calcium-sensitive Modulator of Photoreceptor Guanylyl Cyclases. <i>Journal of Biological Chemistry</i> , 1999, 274, 19329-19337.	1.6	143
67	Mapping Sites in Guanylyl Cyclase Activating Protein-1 Required for Regulation of Photoreceptor Membrane Guanylyl Cyclases. <i>Journal of Biological Chemistry</i> , 1999, 274, 10833-10839.	1.6	58
68	Mapping Functional Domains of the Guanylate Cyclase Regulator Protein, GCAP-2. <i>Journal of Biological Chemistry</i> , 1999, 274, 10823-10832.	1.6	48
69	Detailed Localization of Photoreceptor Guanylate Cyclase Activating Protein-1 and -2 in Mammalian Retinas using Light and Electron Microscopy. <i>Experimental Eye Research</i> , 1999, 68, 465-473.	1.2	76
70	Regulation of Photoreceptor Membrane Guanylyl Cyclases by Guanylyl Cyclase Activator Proteins. <i>Methods</i> , 1999, 19, 521-531.	1.9	64
71	Ca ²⁺ -dependent conformational changes in bovine GCAP. <i>Protein Science</i> , 1998, 7, 2675-2680.	3.1	45
72	Constitutive Activation of Photoreceptor Guanylate Cyclase by Y99C Mutant of GCAP-1. <i>Journal of Biological Chemistry</i> , 1998, 273, 17311-17314.	1.6	149

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73	Calcium Binding, but Not a Calcium-Myristoyl Switch, Controls the Ability of Guanylyl Cyclase-activating Protein GCAP-2 to Regulate Photoreceptor Guanylyl Cyclase. <i>Journal of Biological Chemistry</i> , 1997, 272, 14327-14333.	1.6	131
74	The Membrane Guanylyl Cyclase, Retinal Guanylyl Cyclase-1, Is Activated through Its Intracellular Domain. <i>Journal of Biological Chemistry</i> , 1996, 271, 11646-11651.	1.6	134
75	Inactivation of EF-hands Makes GCAP-2 (p24) a Constitutive Activator of Photoreceptor Guanylyl Cyclase by Preventing a Ca ²⁺ -induced "Activator-to-Inhibitor" Transition. <i>Journal of Biological Chemistry</i> , 1996, 271, 19346-19350.	1.6	90
76	Cloning, Sequencing, and Expression of a 24-kDa Ca ²⁺ -binding Protein Activating Photoreceptor Guanylyl Cyclase. <i>Journal of Biological Chemistry</i> , 1995, 270, 25200-25206.	1.6	301
77	Recoverin immunoreactivity in mammalian cone bipolar cells. <i>Visual Neuroscience</i> , 1993, 10, 1-12.	0.5	293
78	The binding of G proteins to immobilized delipidated rhodopsin. <i>Biochemical and Biophysical Research Communications</i> , 1989, 162, 544-549.	1.0	10
79	GCAP1. <i>The AFCS-nature Molecule Pages</i> , 0, , .	0.2	0
80	GCAP2. <i>The AFCS-nature Molecule Pages</i> , 0, , .	0.2	0